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Veronica officinalis.



VERONICA OFFICINALIS. MALE SPEEDWELL.

VERONICA *Lin. Gen. Pl.* DIANDRIA MONOGYNIA

Cor. Limbo 4. partito, laciniâ infima angustiore. *Capsula* bilocularis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

VERONICA *officinalis* spicis lateralibus pedunculatis, foliis oppositis, caule procumbente *Lin. Syst. Vegetab.* p. 56 *Sp. Pl.* 14. *Fl. Suec.* n. 12.

VERONICA caule decumbente, foliis scabris, petiolatis, ovatis, ex alis racemosa. *Haller Hist. n.* 540.

VERONICA *officinalis. Scopoli. Fl. Carn.* n. 21.

VERONICA mas supina et vulgarissima *Baub. pin.* 246.

VERONICA vera et major. *Ger. emac.* 626.

VERONICA mas vulgaris supina. *Parkins.* 550. *Raii. Syn.* p. 281. The male Speedwell or Fluellin.

Hudson. Fl. Angl. ed. 2. p. 4.

Lightfoot Fl. Scot. p. 27.

Oeder Fl. Dan. t. 248.

RADIX perennis, fibrosa.

CAULES palmares seu spithamæi, teretes, hirsuti, rigidi, repentes.

FOLIA opposita, petiolata, presertim inferiora, hirsutula, ferrata, pollicaria, inferiora basi angustata, superiora ovali-oblonga, obtusa, paulo majora, subfessilia.

RACEMI solitarii, five gemini, in summitate laterales, axillares ex foliis, pedunculati, erecti, nudi, pubescentes, floribus sparsis, brevius pedicellatis.

BRACTEÆ ad flores, solitariae, lineares, obtusæ, pubescentes, longitudine vix calycis, erectæ.

CALYX: PERIANTHIUM monophyllum, quadripartitum, hirsutum, pilis apice glanduligeris, laciniis ovato lanceolatis subæqualibus. *fig.* 1.

COROLLA monopetala, rotata; *Tubus* brevis, albidus, *Limbus* quadripartitus, dilute violaceus, venis saturatioribus pictus, laciniis ovatis, obtusis, inæqualibus; tribus majoribus subæqualibus, unica duplo angustiore. *fig.* 2.

STAMINA: FILAMENTA duo, albida, tubo inferta, corollâ longiora; ANTHERÆ cordatæ, cœrulescentes; POLLEN album. *fig.* 3.

PISTILLUM: GERMEN subovatum, obtusum, compressum, viscosum, utrinque sulcatum, basi glandulâ cinctum; STYLUS filiformis, versus apicem paululum incrassatus, violaceus; STIGMA truncatum. *fig.* 4.

PERICARPIUM: *Capsula* cordata, compressa, calyce paulo longior. *fig.* 5.

SEMINA plurima, parva, compressa, pallide fusca. *fig.* 6.

ROOT perennial and fibrous.

STALKS from three to seven inches in length, round, hirsute, stiffish, and creeping.

LEAVES opposite, standing on footstalks, especially the lower ones, somewhat hairy, ferrated, about an inch in length, the lower ones narrowed at the base, the upper ones of an oblong or oval shape, obtuse, somewhat larger than the lower ones and nearly sessile.

FLOWER-BRANCHES single, or growing in pairs, from the side near the top of the stalk, out of the axæ of the leaves, standing on a foot-stalk, upright, naked, downy, the flowers placed on short foot-stalks without any regular order.

FLORAL-LEAF, one placed singly under each flower, linear, obtuse, downy, scarce the length of the calyx, and upright.

CALYX: a PERIANTHIUM of one leaf, deeply divided into four segments, beset with rough hairs which are glandular at the top, the segments oval pointed, and nearly equal. *fig.* 1.

COROLLA monopetalous and wheel-shaped; the *Tube* short and whitish; the *Limb* divided into four segments, of a faint violet colour, painted with more deeply coloured veins, the segments ovate, obtuse and unequal; the three largest nearly equal; the single one twice as narrow as the others. *fig.* 2.

STAMINA: two FILAMENTS, of a whitish colour, inserted into the tube, and longer than the corolla; ANTHERÆ heart shaped, of a blueish colour; POLLEN white. *fig.* 3.

PISTILLUM: GERMEN somewhat ovate, obtuse, flatten'd, clammy, grooved on each side, surrounded at its base by a gland; STYLE thread-shaped, a little thickened towards the top, of a violet colour; STIGMA as if cut off. *fig.* 4.

SEED-VESSEL: a heart shaped flattened *Capsule*, a little longer than the calyx. *fig.* 5.

SEEDS numerous, small, flattened, of a pale brown colour. *fig.* 6.

ON dry mountainous situations, as on Hampstead Heath, and about Charlton Wood, we find this Species of *Veronica* in great abundance, producing flowers from June to August or later.

Its principal distinguishing character is its creeping stalk, which in some situations is more strictly so than in others, I have observed it on some dry heaths, creeping close to the earth, and in other places scarcely procumbent, but it always has this character in a greater or less degree.

In the colour of its blossoms it varies much, they being in some situations almost blue, in others reddish, and in others white; and it is said to have been found with double flowers.

When it meets with a luxuriant soil, its stalks will extend a foot or two, and its leaves equal those of the *Veronica Chamædrys* in size.

Many writers on the *Materia Medica*, have been lavish of their encomiums on its virtues. RUTTY thus speaks of it.

"It has a faint smell which is not disagreeable, to the taste it is bitterish and somewhat astringent; the extract of it was also bitter and astringent, but that prepar'd with spirit of wine stronger than that prepared with water, and both somewhat acrid, the bitterness resides most in the resinous part.

"An infusion of it on the addition of Vitriol of Iron became of a greenish brown colour, and with ALSTON black; blue paper it made red.

"In its external use the cleansing and astringent powers which it possesses, place it among the principal vulneraries, bad ulcers it cleanses, and disposes them to heal; I have myself been witness of its efficacy in this respect, applied to an inveterate cancerous ulcer in the form of a cataplasm, from discharging a thin ichor, it produced a laudable pus.

"It has been found serviceable also in the Itch, and other cutaneous diseases, made into a gargle with the addition of Honey of Roses, it cures the Thrush, and other ulcers of the mouth and throat.

"Taken inwardly it relieves the asthmatic, attenuating and promoting the expectoration of viscid phlegm, and drank as Tea, it also proves serviceable in wounds or ulcers of the Lungs, &c. &c.

These good effects related with so much confidence by the Dr. we have translated, and present to our readers, should they not be exaggerated the *Veronica officinalis* has very unmeritedly fall'n into disuse.

LYCOPUS EUROPÆUS. WATER HOREHOUND.

LYCOPUS *Lin. Gen. Pl.* DIANDRIA MONOGYNIA

Cor. 4. fida: lacinia unica emarginata. *Stamina* distantia, *Semina* 4. retusa.

Raii. Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

LYCOPUS *europæus* foliis sinuato-ferratis. *Lin. Syst. Vegetab.* p. 63. *Sp. Pl.* p. 30. *Fl. Suec.* n. 31.

LYCOPUS foliis acute ferratis et appendiculatis. *Haller Hist.* 220.

LYCOPUS *europæus*. *Scopoli Fl. Carn.* n. 29.

LYCOPUS palustris glaber *J. R. H.* 191.

MARRUBIUM palustre glabrum *Baub. p.* 230.

MARRUBIUM aquaticum. *Ger. emac.* 700.

MARRUBIUM aquaticum vulgare. *Parkins.* 1230. *Raii. Syn.* p. 236. Water Horehound.

Hudson Fl. Angl. ed. 2.

Lightfoot Fl. Scot.

RADIX perennis, repens.

CAULIS pedalis, ad tripedalem, erectus, quadratus, hirsutus, ad basin usque ramosus; *Rami* oppositi.

FOLIA opposita, ovata, acuta, sessilia, subrugosa, hirsutula, sinuato-ferrata.

FLORES parvi, albi, ad genicula in verticillos densos dispositi.

CALYX: PERIANTHIUM monophyllum, tubulatum, femiquinquefidum, hirsutum, laciniiis acuminatis. *fig. 1.*

COROLLA monopetala, alba, *Tubus* cylindraceus, brevis, *Limbus* quadrifidus, villosus, laciniiis subæqualibus, superiore emarginatâ, omnibus præsertim inferiore rubro punctatis. *fig. 2. 3.*

STAMINA: FILAMENTA duo, corollâ longiora, primum inflexa, demum recta; ANTHERÆ parvæ, subulnatæ, albidæ. *fig. 4.*

PISTILLUM: GERMEN quadrifidum, substantiâ glandulosâ ad basin cinctum; STYLUS filiformis, rectus, longitudine staminum; STIGMA bifidum. *fig. 5.*

SEMINA quatuor, *fig. 9.* fusca, nitida, oleo quasi illinita, subtriangularia, externe planiuscula, lineâ, subcordata in medio impressâ, interne medio ad angulum producta, lateribus subinvolutis. *fig. 6.* externe. *fig. 7.* interne visum.

ROOT perennial and creeping.

STALKS from one to three feet in height, upright, four corner'd, beset with rough hairs; branched quite to the bottom; *Branches* opposite.

LEAVES opposite, ovate, pointed, sessile, somewhat wrinkled, slightly hirsute, sawed at the edge, the incisions deep and somewhat waved.

FLOWERS small, and white, disposed round the joints in thick whirls.

CALYX: a PERIANTHIUM of one leaf, tubular, and hirsute, slightly divided into five segments, which run out to a fine point. *fig. 1.*

COROLLA monopetalous and white, *Tube* cylindrical, short, *Limb* divided into four segments, blunt, spreading, villous within, the segments nearly equal, the uppermost notched, all of them especially the lower one dotted with red, *fig. 2. 3.*

STAMINA: two Filaments, longer than the corolla, at first bent in, afterwards straight; ANTHERÆ small, somewhat crescent-like and whitish. *fig. 4.*

PISTILLUM: GERMEN divided into four parts, surrounded at bottom by a glandular substance; STYLE filiform, straight, the length of the stamens; STIGMA bifid. *fig. 5.*

SEEDS four, *fig. 9.* brown, shining as if anointed with oil, somewhat triangular, externally flattish, with an impressed somewhat heart-shaped line in the middle, internally the middle running out to a point or angle, the sides somewhat rolled in *fig. 6.* seen externally. *fig. 7.* internally.

THIS is one of the most common plants one meets with in Meadows, by the sides of rivers, and streams of water, it flowers in August and September.

In its habit it manifests the greatest affinity with the *Herbæ verticillatæ* of RAY, but like the genus *Salvia*, differs from them in its fructification.

The leaves vary in being more or less hairy, and more or less finely divided.

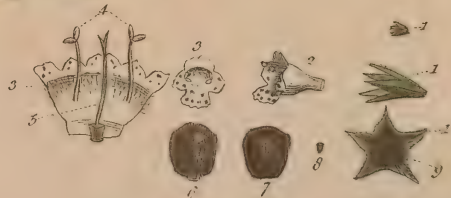
In some Meadows it abounds so much as to be noxious to the farmer; Cattle appear never to touch it; its root being of the creeping kind, renders it difficult of extirpation.

It is said to give a durable stain to whatever it touches, to be used by the French as an assistant ingredient in dyeing black, and by Gypsies in staining their skins. *Lin. flor. suec. Haller. hist. helv.*





Lycopodium europaeum.



CIRCÆA LUTETIANA. ENCHANTERS NIGHTSHADE.

CIRCÆA *Lin. Gen. Pl.* DIANDRIA MONOGYNIA

Cor. dipetala. *Cal.* diphyllus, superus. *Sem.* 1. biloculare.

Raii. Syn. Gen. 19. 20. HERBÆ VASCULIFERÆ, FLORE DIPETALO ET TRIPETALO.

CIRCÆA *lutetiana*, caule erecto, racemis pluribus, foliis ovatis. *Lin. Syst. Vegetab.* p. 55. *Sp. Pl.* p. 12.
Fl. Suecic. n. 6.

CIRCÆA foliis subcordatis subferratis. *Haller hist.* n. 813.

CIRCÆA *lutetiana*. *Scopoli. Fl. Carn.* n. 6.

CIRCÆA *lutetiana*. *Lob. ic.* 266. *Ger. emac.* 351.

CIRCÆA *lutetiana major*. *Park.* 351.

SOLANIFOLIA *Circæa dicta major*. *Bauh, pin.* 168.

OCYMASTRUM verrucarium. *J. B.* 11. 977. *Raii. Synops.* p. 289. Enchanters Nightshade.

Oeder. Fl. Dan. t. 256.

Lightfoot Fl. Scot. p. 20.

Hudson. Fl. Angl. p. 10.

RADIX perennis, repens, stolonibus albis.

CAULIS pedalis ad sesquipedalem, suberectus, teres, lævis, geniculis incrassatis, purpurascens, ramosus.

RAMI oppositi, longi, inferne foliosi, superne pubescentes.

FOLIA opposita, petiolata, subcordata, acuta, lævia, inferne pallidiora, margine dentata.

FLORES parvi, albi, summitatibus ramulorum racematim infidentes.

PEDUNCULI alterni, demum deflexi.

CALYX: PERIANTHIUM diphyllum, foliolis ovatis, concavis, deflexis, purpureis, pedunculo communi infidentibus. *fig.* 1. 9.

COROLLA: PETALA duo, obcordata, longitudine calycis, patentia, æqualia, carnea, sessilia. *fig.* 2.

STAMINA: FILAMENTA duo, capillaria, erecta, alba; ANTHERÆ subrotundæ, majusculæ, albidæ. *fig.* 3.

PISTILLUM: GERMEN inferum, hispidum; STYLUS filiformis, longitudine staminum; STIGMA bifidum, ruberrimum. *fig.* 4. 8.

PERICARPIUM: CAPSULA turbinato-ovata, compressa, hispida, pilis uncinatis, bilocularis, bivalvis, a basi ad apicem dehiscens. *fig.* 5. 6.

SEMINA duo, oblonga, inferne angustiora. *fig.* 7.

ROOT perennial and creeping, its young shoots white. STALKS from a foot to a foot and half in height, nearly upright, round, smooth, the joints swelled and purplish, branched.

BRANCHES opposite, long, on the lower part leafy, on the upper downy.

LEAVES opposite, standing on foot-stalks, somewhat heartshaped, pointed, smooth, of a paler green on the under side, the edge toothed.

FLOWERS small, whitish, placed on the tops of the branches in racemi.

FLOWER-STALKS alternate, finally turned downwards.

CALYX: a PERIANTHIUM of two leaves, which are ovate, hollow, turned back, of a purple colour, sitting on one common footstalk. *fig.* 1. 9.

COROLLA: two PETALS inversely heartshaped, the length of the calyx, spreading, equal, flesh-colour'd and sessile. *fig.* 2.

STAMINA: two FILAMENTS, very fine, upright, of a white colour; ANTHERÆ roundish, rather large, of a whitish colour. *fig.* 3.

PISTILLUM: GERMEN placed below the calyx, hispid, and grey; STYLE filiform, the length of the stamens; STIGMA bifid, of a bright red colour. *fig.* 4. 8.

SEED-VESSEL: a CAPSULE somewhat egg-shaped, but considerably broadest at one end, flatten'd, hispid, the hairs hooked at the extremity, having two cavities and two valves, and opening from the bottom to the top. *fig.* 5. 6.

SEEDS two, oblong, narrowest at the bottom. *fig.* 7.

THE *Enchanters Nightshade* is a plant by no means uncommon in particular situations, as in shady lanes, in orchards, under hedges, walls, and in woods, it flowers in July and August; the Botanist will discover many beauties in its fructification, the gardener finds a difficulty in destroying it, its root being of the creeping kind.

Its seeds being arm'd with little hooks are apt to adhere to ones cloaths.

The caterpillar of the *Sphinx Elpenor* or *Elephant Hawk Moth* which chiefly confines itself to the *Galium palustre* or *marsh Ladies Bedstraw* has sometimes been found feeding on this plant, nor is this the only instance of its departure from its usual food, in the Autumn of seventy-nine the same species of caterpillar was sent me from the country, the plant on which it was there found was the *Arum Dracunculus* or *Dragons*, one very dissimilar in its nature to the *Galium*, I have often had occasion to observe that some caterpillars will perish unless they have their peculiar food, while others will devour any vegetable that presents itself; who would think that the *Phalæna Brassicæ*, would feed heartily, and be nourished by the leaves of the deadly *Nightshade*, or the roots of the *Onion*? yet I have myself been an eye witness to both instances.



Iris Pseudacorus.

IRIS PSEUDACORUS. YELLOW IRIS.

IRIS *Lin. Gen. Pl.* TRIANDRIA MONOGYNIA.

Cor. Limbo 4. partito: *Petalis* alternis reflexis. *Stigmata* petaliformia.

Raii. Syn. Gen. 26. HERBÆ RADICE BULBOSA PREDITÆ.

IRIS *Pseudacorus* corollis imberbibus, petalis interioribus stigmatibus minoribus, foliis ensiformibus. *Lin. Syst. Vegetab. p.* 79. *Sp. Pl. p.* 56. *Fl. Suec. n.* 37.

IRIS caule inflexo, foliis ensiformibus; petalis erectis, minimis, reflexis, imberbibus. *Haller Hist. n.* 1260.

IRIS *Pseudacorus. Scopoli. Fl. Carn. n.* 49.

IRIS palustris lutea. *Ger. em.* 50.

ACORUS adulterinus. *Bauh. pin.* 74.

ACORUS palustris, five Pseudo-iris et Iris lutea palustris. *Park* 1219. *Raii. Syn. p.* 174. Yellow water Flower-de-luce.

Hudson. Fl. Angl. ed. 2. p. 14. *Lightfoot. Fl. Scot. p.* 86. *Oeder. Fl. Dan. t.* 404.

RADIX perennis, crassitie pollicis, horizontalis, foris nigricans, intus rubicundus, spongiosus, superne plurimis fibrillis rigidis oblecta, inferne dimittens radículas longas, albas, rugosas.

FOLIA radicalia, bi aut tripedalia, erecta, lata, ensiformia, nervo eminente, basi equitantia, caulina breviora, alterna, basi vaginantia.

CAULIS pedalis ad tripedalem, erectus, e geniculo ad geniculum alterne inclinatus, teres, lævis, spongiosus.

FLORES erecti, speciosi, flavi.

PEDUNCULI axillares, semiteretes, glabri.

CALYX: SPATHA biflora aut triflora, bivalvis, trivalvis aut quadrivalvis secundum numerum florum.

COROLLA sexpartita; PETALA tria exteriora ampla, ovato rotundata, reflexa, lineis rubris seu ex rubro-fuscis ad basin laminæ picta, ad basin unguis biforaminosa, tria interiora primo erecta, cito inflexa, stigmatibus breviora, oblonga, basi angustata, intus cava. *fig.* 1. 2.

STAMINA: FILAMENTA tria, subulata, compressa; ANTHERÆ oblongæ, luteæ, marginibus purpurascentibus, ab incumbente stigmatibus in arcum depressæ, biloculares, loculæ lineares, inferne dehiscences, *fig.* 3.

PISTILLUM: GERMEN inferum, oblongum, trigonum, angulis obtusis fulcatis; STYLUS tenuis, germine brevior; STIGMA maximum, tripartitum, flavum, laciniis oblongis, superne carinatis, inferne concavis apice trifidis, venosis, ferrulatis, segmento medio brevissimo, infero. *fig.* 4. 5. 6.

PERICARPIUM: CAPSULA oblonga, angulata, trilocularis, trivalvis. *fig.* 7.

STAMINA plurima, magna, flavescencia, utrinque compressa. *fig.* 8.

ROOT perennial, the thickness of ones thumb, horizontal, externally blackish, reddish within, and spongy, the upper part covered with numerous rigid fibres, its lower part sending down many long, whitish, wrinkled, stringy roots.

LEAVES from the root, two or three feet high, upright, broad, sword-shaped, with a prominent midrib, at bottom riding one on another and covered with a glutinous substance, those on the stalk shorter, alternate, forming a sheath at the bottom.

STALKS from one to three feet in height, upright, alternately inclined from joint to joint, round, smooth, and spongy.

FLOWERS upright, showy, of a yellow colour.

FLOWER-STALKS proceeding from the axæ of the leaves, round, but flattened on one side and smooth.

CALYX, a SPATHA containing two or three flowers, of two, three, or four valves according to the number of flowers.

COROLLA deeply divided into six segments: the three outermost segments or PETALS large, of a roundish oval shape, turning back, painted at the base of the broad part with lines of a reddish brown colour, and at the bottom of the claw or narrow part having the appearance of two small holes. *fig.* 1. 2.

STAMINA: three FILAMENTS flat and tapering; ANTHERÆ oblong, yellow, edges purplish, bent down by the stigma pressing on them, having two cavities which are linear and open on the under side. *fig.* 3.

PISTILLUM: GERMEN placed below the corolla, three cornered, the angles blunt and grooved; STYLE slender, shorter than the stigma; STIGMA very large, deeply divided into three segments, of a yellow colour, the segments oblong, above keel-shaped, below concave, at the top veiny, sawed at the edge and subdivided into three segments of which the middle one is very short and placed underneath. *fig.* 4. 5. 6.

SEED-VESSEL an oblong, angular CAPSULE, of three cavities and three valves. *fig.* 7.

SEEDS numerous, large, of a yellowish colour and flattened on both sides. *fig.* 8.

MANY of the plants of this tribe recommend themselves to our notice by the beauty and delicacy of their blossoms, some by their medicinal, and others by their oeconomical uses; the present plant may perhaps put in its claim on each of these accounts, and though its flowers may not possess the fragrance so grateful in the *Iris persica*, the magnificence which astonishes in the *susiana*, or the variety of colours which glow in the *versicolor*, yet those who have examined its structure must allow it to be at once beautiful, delicate, and singularly curious; the Stigma in particular deserves to be noticed by the Student, being in form and substance more like the petals than the part it really is.

As to its medicinal powers—the root is without smell, viscid, and of a sweetish taste, its infusion and decoction at first very sweet, then highly astringent, presently producing a sense of heat in the throat, which continued with me for more than twelve hours. *Rutty Mat Med.*

An infusion of it became black on the addition of Vitriol of iron. *id.*

In drying it loses much of its acrimony. *id.*

Cut into the form of pease it is useful to destroy the proud flesh in issues, and promotes their discharge. *id.*

The juice has been used to promote sneezing, but being highly acrimonious of itself, a few drops of it mixed with milk has been used to produce that effect in the tooth-ach. *id.*

The juice of the root has also been recommended to be applied to creeping ulcers, and being considered as possessing considerable astringent powers, it has been administered in fluxes but very injudiciously according to some modern experiments made with it, (*vid Edinburg Med. Essays*) by which it was found that eighty drops of this juice repeated every hour or two, proved an excellent purgative where Jalap and Gamboge had in vain been exhibited. On the whole it appears to be a violent medicine, and to be used with great caution. The only account we have of its oeconomical uses is, that an infusion or decoction of it like that of galls and other vegetable astringents is capable with the addition of iron of being converted into ink, or of dying black, to both of which purposes it has long been applied in Scotland and the adjacent Isles. *Sibbald. Lightfoot.*

It is a very common plant in marshy meadows, by the sides of rivers, ponds, &c. and flowers in the beginning of July.

Planted in the garden where the soil is moist, it increases exceedingly both by root and seeds.



AVENA FLAVESCENS. YELLOW OAT GRASS.

AVENA *Lin. Gen. Pl.* TRIANDRIA DIGYNIA.

Cal. 2-valvis, multiflorus: arista dorsali contortâ.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AVENA *flavescens* panicula laxa, calycibus trifloris brevibus, flosculis omnibus aristatis. *Lin. Syst. Vegetab.* p. 105. *Sp. Pl.* 118. *Fl. Suec.* p. 103.

AVENA triantha, locustis teretibus, calycina gluma altera minima, petiolo villoso. *Haller. Hist.* p. 1497.

GRAMEN avenaceum pratense elatius, panicula flavescente, locustis parvis. *Raii Syn.* p. 407.

GRAMEN avenaceum, spica parva flavescente, locustis parvis. *Moris. Hist.* 3, p. 215. f. 8. t. 7. fig. 42. *Scheuch. Agrost.* p. 223. t. 4. f. 18.

Hudson. Fl. Angl. ed. 2. p. 53.

Lightfoot Fl. Scot. p. 106.

Schreber. Gram. tab. 9.

RADIX perennis, culta manifeste repens.

CULMUS pedalis ad bipedalem, erectus, teres, tribus aut quatuor geniculis purpurascens in-structus, hirsutus.

FOLIA plana, ad duas lineas lata, unâ cum vaginâ quæ striata est pilis modice longis hirsutula.

PANICULA triuncialis et ultra, dum florent spiculæ quam maxime diffusa, e flavo virens, erecta; postea coarctata, subsecunda, e flavo-fusca, splendens.

SPICULÆ parvæ, bifloræ, etiam trifloræ et quadrifloræ, flosculis omnibus aristatis. *fig.* 3. 4. 9.

CALYX: Gluma bivalvis, valvulis inæqualibus, submembranaceis, acuminatis, alterâ majori *fig.* 1. 2.

COROLLA: Gluma bivalvis, valvulis inæqualibus, alterâ minore subdiaphanâ, membranacea, penitus alba, apice bifida, altera majori tribus aut quatuor nervis viridibus insignita, concava, bifida, aristata. *fig.* 3. 6.

NECTARIUM: Glumulæ duæ longitudine germinis, apice laciniatæ. *fig.* 8.

ARISTA ex dorso circa medium valvulæ majoris erumpit, in vivâ planta recta, valvulâ duplo fere longior, in siccâ recurva. *fig.* 4. 9.

STAMINA: FILAMENTA tria, capillaria, longitudine florum, ANTHERÆ flavæ, bifurcatæ. *fig.* 5.

PISTILLUM: GERMEN ovale, nudum; STYLI duo, ramosissimi, ex apice germinis, deflexi. *fig.* 7.

SEMEN oblongum, acuminatum, nudum, valvulâ majori inclusum

ROOT perennial, when cultivated manifestly creeping.

STALK from one to two feet high, upright, round, furnished with three or four purplish joints, and covered with numerous short hairs.

LEAVES flat, rarely exceeding two lines in breadth, together with the sheath which is finely grooved covered with hairs of a moderate length.

PANICLE three inches and more in length, while the spiculæ flower spreading as wide as possible, of a yellowish green colour and upright; afterwards closing together, with the spiculæ mostly one way, and becoming of a yellowish brown colour and shining.

SPICULÆ small, containing two, three, or four flowers, all of which have awns. *fig.* 3. 4. 9.

CALYX. A glume of two valves which are unequal, somewhat membranous, pointed, one larger than the other. *fig.* 1. 2.

COROLLA. A glume of two valves which are unequal, the least somewhat transparent, membranous, white, and bifid, the largest marked with three or four green nerves, hollow, bifid, and furnished with an awn. *fig.* 3. 6.

NECTARY: two small Glumes, the length of the germen, jagged at top. *fig.* 8.

AWN springing from about the middle of the back of the larger valve, in the living plant strait, almost twice the length of the valve, in the dried one crooked back. *fig.* 4. 9.

STAMINA: three FILAMENTS very fine, the length of the flowers; ANTHERÆ yellow, forked at both ends. *fig.* 5.

PISTILLUM: GERMEN oval, naked: STYLES two, very much branched, growing from the top of the germen, and hanging down. *fig.* 7.

SEED oblong, pointed, naked, inclosed in the larger valve.

The term *flavescens* has with propriety been given to this species of *Avena*, as its panicle, especially on closing after it has flowered, is of a yellower hue than any of the others, and this is one character which may serve to distinguish it; added to this it is one of the least of the genus, its panicle is finely divided, its spiculæ are small, delicate, and generally contain two perfect flowers; and its leaves and stalks are *constantly hairy*: cultivated in a garden, it becomes larger in every respect, and the spiculæ contain three or more flowers.

We may remark that the Arista or Beard in the living plant is strait, but crooked in dried specimens.

Though not so common as the *Avena elatior*, it is to be found in most pastures, especially such as are elevated, in some meadows, and frequently on grassy banks by the road side, it flowers about the end of June.

Mr. STILLINGFLEET has not enumerated this grass among his valuable ones, yet it is more deserving of that distinction than some of those he has figured, especially the *mountain* and *silver Hair-grass*, the latter of which is a trifling annual with respect to agriculture, unworthy of the Farmer's notice: the yellow Oat-grass is a perennial, forms in many counties a principal part of the finest pasturage on the downs, and in divers meadows contributes to the goodness as well as greatness of the crop. As to time, it is not so early as many of the *Poas*, nor is it so late as some of the *Agrostis* tribe; on the whole, from the remarks I have made on it in its wild and cultivated state, I would recommend it as one of the few out of the many English grasses worth the husbandman's attending to.



Avena elatior.

AVENA ELATIOR. TALL OAT-GRASS.

AVENA Lin. Gen. Pl. TRIANDRIA DIGYNIA

Cal. 2 valvis, multiflorus : arista dorsali contorta.

Raii. Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AVENA elatior paniculata, calycibus bifloris, flosculo hermaphrodito submutico, masculo aristato.

Lin. Syst. Vegetab. p. 104. Sp. Pl. p. 117. Fl. Suec. N. 102.

AVENA diantha folliculis basi villosis, majoris arista geniculata. Haller Hist. n. 1492.

GRAMEN nodosum avenacea panicula. Baub. pin. 2. Scheuchz. Agroft p. 239.

GRAMEN caninum nodosum. Ger. em. 23.

GRAMEN caninum bulbosum vulgare. Park. 1075.

GRAMEN avenaceum elatius, juba longa splendente Raii. Meth. 179. Syn. p. 406. 4.

Hudson. Fl. Angl. ed. 2. p. 53.

Lightfoot Fl. Scot. p. 105.

Oeder Fl. Dan. t. 165.

Schreber Gram. t. 1.

RADIX perennis, fibrosa, fibris plurimis, flexuosis, fuscis, intertextis.

CULMI bi aut tripedales, etiam ultra, erecti, tribus quatuorve geniculis purpurascensibus distincti, teretes, læves, basi in bulbillos sæpe excrefcente.

FOLIA caulina, spithamea, etiam pedalia, duas tresve lineas lata, una cum vaginâ striata, lævia.

PANICULA longa, etiam pedalis, erecta, splendens, laxè coarctata, ramulis plurimis, inæqualibus, subsecundis.

SPICULÆ bifloræ, altero flosculo hermaphrodito, altero masculo. fig. 1.

CALYX, Gluma bivalvis, valvulis inæqualibus, membranaceis, acutis, albidis, majore nervis tribus viridibus, minore unico insignitis. fig. 2.

COROLLA maris : valvulæ duæ, longitudine æquales, altera majore, concava, nervis sex viridibus notata, apicibus sæpius purpurascensibus, acuta, aristata, Arista infra medium exsertâ, spiculâ longiore, geniculata, inferne spiraliter contorta, superne setacea; altera planiuscula, apice bicuspidata; valvulæ hermaphroditi quoad formam vix discrepant, at nervus medius prope apicem valvulæ exterioris, in aristam brevem excurrit, et basis ejusdem valvulæ pilis plurimis obtegitur. fig. 3. 4.

NECTARIUM Glumulæ duæ lanceolatæ, basi subglobosæ. fig. 6.

STAMINA : FILAMENTA tria, capillaria; ANTHERÆ oblongæ, flavæ, bifurcatæ.

PISTILLUM : GERMEN subovatum, villosum; STYLI duo, magni, ramosissimi, reflexi. fig. 7.

SEMEN oblongum, læve, intra glumas calycinas basi pilosas, liberum fig. 8. 9. 10.

ROOT perennial, fibrous, the fibres numerous, crooked, of a brown colour, and matted together.

STALKS from two to three feet high, or even more, upright, having four or five joints of a purplish colour, round, smooth, the base often growing out and forming small bulbs.

LEAVES of the stalk six or seven inches or even a foot in length, from two to three lines in breadth, together with the sheath striated and smooth.

PANICLE long, even the length of a foot, upright, shining, loosely closing together, branches numerous, unequal, growing in some degree to one side.

SPICULÆ containing two flowers, the one male and the other hermaphrodite. fig. 1.

CALYX : a Glume of two valves, the valves unequal, membranous, pointed, whitish, the largest marked with three and the smallest with one green nerve. fig. 2.

COROLLA of the male flower; composed of two valves, equal in length, the largest hollow, and marked with six ribs, generally purple at top, pointed and bearded; Beard or awn growing out from below the middle of the valves, longer than the spicula, and jointed, on the lower part spirally twisted, on the upper bristle sharpened, the least flattish and terminating in two points; the valves of the hermaphrodite floscule differ but little from the male one as to shape but the midrib in the outer valve runs out into a short awn and the bottom of the same valve is covered with numerous hairs. fig. 3. 4.

NECTARY : two small Glumes, lanceolate, somewhat globular at bottom.

STAMINA : three FILAMENTS very fine, ANTHERÆ oblong, yellow, and forked.

PISTILLUM : GERMEN somewhat ovate, villous; STYLES two, large, very much branched and hanging down. fig. 7.

SEED oblong, smooth, contained loosely within the glumes of the calyx which are hairy at bottom, fig. 8. 9. 10.

Experience must determine how far this Grass deserves the attention of the Farmer, thus much I may inform him, that it is one of the earliest Grasses in the Spring, that it produces a great crop, and when cut down after feeding, it has flower'd afresh in the autumn, these are certainly some of the necessary requisites in a good Grass, yet it does not often occur in meadows but is rather fond of growing on banks, in hedges and on the borders of fields, where it is very conspicuously in blossom in June and September, nevertheless I have occasionally seen it growing in Pastures; the only objection to it perhaps is its coarseness, which however should not prevent the Farmer from giving it a fair trial.

In particular situations the upper part of the root or rather base of the stalk becomes knobby, and it then forms the Gramen caninum nodosum of GERARD, this in some arable Land, I have been informed is very troublesome, and eradicated as Couch; instances often occur in which a valuable plant in one situation is a perfect weed in another.

It is the most common of all our Oat-grasses and is therefore not liable to be mistaken for any other of the same genus.

As it varies with respect to its root, so does it also with regard to its arista, of which in general there is only one to each spicula, but sometimes each floscule contained in the spicula has an arista, in which case one is usually longer than the other.

In the grasses no character is more inconstant than that of the awn, arista, or beard, in some grasses whose character it is to be muticæ it is present as in the Lolium perenne, Agroftis capillaris, and alba; and in others whose character it is to be aristatæ it is wanting, as in the Agroftis canina, the striking alteration in the appearance of the grass from this circumstance has often been the cause of multiplying species unnecessarily.

AIRA PRÆCOX. EARLY HAIR-GRASS.

AIRA *Linnaei. Gen. Pl.* TRIANDRIA DIGYNIA.

Cal. 2-valvis, 2-florus. *Flosculi* absque interjecto rudimento.

Raii Syn. Gen. 27. HERBÆ GRAMINIFOLIÆ FLORE IMPERFECTO CULMIFERÆ.

AIRA *præcox* foliis fetaceis; vaginis angulatis, floribus paniculato spicatis, flosculis basi aristatis.
Linnaei Syst. Vegetab. p. 96.

GRAMEN paniculatum minimum molle. *Bot. Monsp. App.*

GRAMEN parvum præcox paniculâ (potius spicâ) laxâ canescente. *Raii Syn. ed. 3. p. 408. tab. xxii. fig. 2.*

GRAMEN avenaceum, capillaceum, minimis glumis minimum. *Breynii.*

GRAMEN phalaroides, sparsâ paniculâ minimum angustifolium. *Barrel. Ic. 44. 1. tab. iv. fig. 15.*

Lightfoot. Fl. Scot. p. 95.

Hudson. Fl. Angl. 31. ed. 2. p. 36.

Oeder. Fl. Dan. 383.

RADIX annua, fibrosa.

CULMI plures, simplices, bi aut triunciales, semipedales etiam occurrunt, teretes, læves, erecti.

FOLIA radicalia sæpius linearia, convoluta, marcida; caulina vaginâ breviora, subrecta, paululum recurvata, obtusiuscula; *Membrana* pro ratione folii longa, alba, culmum circumvolvens, in plantis adhuc tenellis notatû digna; *Vagina* striata, subventricosa.

PANICULA coarctata, spiciformis, mollis, semiuncialis, aut uncialis.

SPICULÆ bifloræ, biaristatæ, *fig. 1. auct.*

CALYX: GLUMA bivalvis, valvulæ subæquales, ovato-acutæ, submembranaceæ, carinâ ad lentem scabrâ, *fig. 2.*

COROLLA: GLUMA bivalvis, valvulæ subæquales, longitudine calycis, altera majori, bicuspidatâ, aristatâ; arista infra medium glumæ posita, corollâ duplo longior, plerumque recta, *fig. 3, 5.*

STAMINA: FILAMENTA tria, capillaria, brevissima: ANTHERÆ minimæ, flavescentes, *fig. 4.*

PISTILLUM: GERMEN oblongum: STYLI duo, ad basin usque ramosi.

SEMEN oblongum, hinc convexum inde concavum, bicuspidatum, aristatum, basi pilosum, *fig. 6, 7.*

ROOT annual, and fibrous.

STALKS several, simple, from two to three inches, sometimes even to six inches high, round, smooth, and upright.

LEAVES, near the root generally linear, rolled up, and withered; those of the stalk shorter than the sheath, nearly upright, but bending a little back, and somewhat blunt; the *Membrane*, for the size of the leaf, long, white, surrounding the stem, strikingly conspicuous in the plant while young; the *Sheath* finely grooved, and bellying a little in the middle.

PANICLE closed together, and resembling a spike, soft, half an inch or an inch in length.

SPICULÆ containing two flowers, each of which has an arista, *fig. 1. magnified.*

CALYX: a GLUME of two valves, the valves nearly equal, oval, and pointed, somewhat membranous, the keel appearing rough when magnified, *fig. 2.*

COROLLA: a GLUME of two valves, nearly equal, of the length of the calyx, one of which is larger than the other, terminated by two long points, and furnished with an arista; the arista growing out from below the middle of the glume, twice the length of the corolla, and generally strait, *fig. 3, 5.*

STAMINA: three FILAMENTS, fine, and very short: ANTHERÆ very minute, and yellowish, *fig. 4.*

PISTILLUM: GERMEN oblong: STYLES two, and branched to the bottom.

SEED oblong, convex on one side, and hollow on the other, having two points, with an arista, hairy at bottom, *fig. 6, 7.*

THE *Aira præcox* is very common on most of our heaths about town, particularly on *Black-heath*.

It flowers in April and May, and ripens its seed in June.

SCHEUCHZER mentions its growing sometimes to the height of fourteen inches, a height it rarely attains with us.



Sira pinnata

Lamarck



Montia fontana.

MONTIA FONTANA. BLINKS.

MONTIA *Lin. Gen. Pl.* TRIANDRIA TRIGYNIA.

Cal. 2 phyllus. *Cor.* 1 petala irregularis. *Caps.* 1 locularis, 3. valvis.

Raii. Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

MONTIA fontana *Lin. Syft. Veget. p.* 110. *Sp. pl.* 129. *Succic. n.* 115.

MONTIA *Haller. Hift. n.* 301.

PORTULACA arvensis. *Baub. pin.* 282.

CAMERARIA arvensis minor. *Dill. Gifs.* 46.

PORTULACA exigua seu arvensis Camerarii J. B. III. 678.

PORTULACA tricoccus. *Pet. Herb. Brit.* 10. 12.

ALSINE flosculis conniventibus. *Merr. pin.*

ALSINEFORMIS paludosa tricarpos flosculis, albis inapertis. *Pluk. Alm.* 21. T. 7. f. 5.

ALSINE parva palustris tricoccus, Portulacæ aquaticæ fimilis. *Raii. Syn. p.* 352. small water Chick-weed or Purslane by some called Blinks.

Oeder. Fl. Dan. t. 113.

Hudson. Fl. Angl. ed. 2. p. 60.

Lightfoot. Fl. Scot. p. 110.

RADIX annua, fibrosa.
CAULES plurimi, teretes, glabri, rubentes, in terram reclinati et subinde radices agentes, duorum, triumve digitorum longitudine, ramosi et crebris geniculis intercepti.
FOLIA opposita, sessilia, oblonga, acutiuscula, prope basin angustata, subcarnosa, glabra, pallide virentia.
PEDUNCULI plerumque terni, uniflori, axillares, peractâ florentiâ recurvati, postea erecti, foliis longiores, e squama membranacea prodeuntes.
CALYX: PERIANTHIUM diphyllum; foliolis ovatis, concavis, obtusis, erectis, persistentibus. *fig. 1. 9.*
COROLLA monopetala, quinquepartita, alba, laciniis tribus, alternis, minoribus, staminiferis. *fig. 2. 3. 4.*
STAMINA: FILAMENTA tria, capillaria, corollâ breviora, cui inserta: ANTHERÆ parvæ, albæ. *fig. 4.*
PISTILLUM: GERMEN turbinatum, subtriangulare; STYLI tres, villosi, patentes; STIGMATA simplicia. *fig. 5.*
PERICARPIUM: CALYX permanens, auctus, truncatus, continet CAPSULAM, turbinatam, unilocularem, trivalvem, valvulis ovatis, acutis, monospermis, demisso femine filiformibus, calyce paulo longioribus. *fig. 6. 7. 8. 10.*
SEMINA nigra, subreniformia. *fig. 11.*

ROOT annual, and fibrous.
STALKS numerous, round, smooth, reddish, spreading on the ground, and sometimes striking root, two or three inches in length, branched and jointed.
LEAVES opposite, sessile, oblong, somewhat pointed, narrowed near the base, rather fleshy, smooth and of a pale green colour.
FLOWER-STALKS generally growing three together, each supporting one flower, proceeding from a little scale in the bosom of the leaves, as soon as the flowering is over hanging down, afterwards becoming upright and longer than the leaves.
CALYX: a PERIANTHIUM of two leaves: the leaves oval, concave, obtuse, upright, and permanent, *fig. 1. 9.*
COROLLA of one petal, deeply divided into five segments, of a white colour, the three alternate ones least, having the stamina attached to them. *fig. 2. 3. 4.*
STAMINA: three slender FILAMENTS shorter than the corolla to which they are connected: ANTHERÆ small and white *fig. 4.*
PISTILLUM: GERMEN large at top, small at bottom, and somewhat triangular; STYLES three, villous, spreading; STIGMATA simple. *fig. 5.*
SEED-VESSEL: the permanent and encreasing CALYX, cut off as it were at top contains a CAPSULE of the same shape as the germen, of one cavity and three valves, the valves ovate, and pointed, each containing one seed on the falling of which they become thread shaped and a little longer than the calyx. *fig. 6. 7. 8. 10.*
SEEDS black and somewhat kidney-shaped. *fig. 11.*

THIS plant of which there is but one species appears first to have had a generic character bestowed on it by DILLENIUS, who called it *Cameraria* in honour of CAMERARIUS a German Physician and Botanist; MICHELI afterwards figured it among his *Nova Genera* and gave it the name of *Montia* in commemoration of his countryman MONTI an Italian Botanist, which name has been adopted by LINNÆUS.

Its parts of fructification which are represented in a magnified state, on the Plate, and of which a particular description is given are singular enough to justify these Authors in making it a distinct Genus.

The English name of *Blinks* has perhaps been given to this plant from the blossoms usually appearing in a half opened state, but when the Sun shines on them they are fully expanded.

It grows in wet places, especially on the moist gravelly parts of Heaths, where the water stagnates in the winter, on *Black-Heath*, *Hampstead-Heath*, and in other similar situations it is very common, flowering in May and ripening its seed in the beginning of June.

It is easy of Cultivation but not remarked for its utility in any respect; the seed may probably be the food of small Birds.

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS
JANUARY 1900

TO THE PRESIDENT OF THE UNIVERSITY OF CHICAGO
FROM THE FACULTY OF THE UNIVERSITY OF CHICAGO

Resolved, That the Faculty of the University of Chicago
do hereby express their appreciation of the services
of the President of the University of Chicago
for the past year, and do hereby express their
confidence in his ability to continue to serve
the University with the same efficiency and
loyalty.

ATTEST:
JANUARY 1900

THE FACULTY OF THE UNIVERSITY OF CHICAGO

DIPSACUS SYLVESTRIS.

WILD TEASEL.

DIPSACUS *Lin. Gen. Pl.* TETRANDRIA MONOGYNIA

Calyx communis, polyphyllus; proprius superus. Recept. paleaceum.

Raii. Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

DIPSACUS capitulis ovatis, foliis arcuatis circumvallatis, aristis squamarum rectis. *Haller hist. n. 198.*

DIPSACUS sylvestris seu Labrum Veneris. *J. B. III. 74.*

DIPSACUS sylvestris aut Virga pastoris major. *C. B. pin. 385.*

DIPSACUS sylvestris. *Ger. emac. 1167. Parkins. 984.*

Hudson. Fl. Angl. ed. 2. p. 6.

Lightfoot Fl. Scot. p. 113.

Jacquin Fl. Austr. t. 402.

RADIX biennis, simplex, fibris majusculis donatus.
CAULIS tripedalis ad orgyalem, ramosus, teres, striatus, inanis, inferius spinis rarius dispositis, prope capitula creberrimis horridus.

FOLIA radicalia primi anni supra terram in orbem sparsa, ovato-oblonga, obtusiuscula, crenato-ferrata, rugosa, spinulis rarioribus aspera, caulina saltem inferiora minus rugosa, basi adeo connata ut sinum magnum efficiant, post pluvias aquâ plenum, ovato-acuta, crenata, spinis ad marginem et nervum medium rarius oblitum, summa minus connata, magisque lanceolata, integerrima et fere inermia.

CAPITULA plurima, solitaria, erecta, ovato-oblonga, subacuminata.

FLORES purpurei, circa medium capituli primo erumpentes.

INVOLUCRUM polyphyllum, foliis sublinearibus, rigidis, spinulosis, sursum arcuatis, longitudine capituli, inæqualibus.

CALYX: PERIANTHIUM proprium, minimum, viride, ciliatum. *fig. 1.*

COROLLA monopetala, tubulosa; *Tubus* infundibuliformis, basi attenuatus, albidus, ad lentem villosulus; *Limbus* quadrifidus, erectus, purpureus, laciniis obtusis, extimâ majori. *fig. 2.*

STAMINA: FILAMENTA quatuor, albida, capillaria, recta, tubo corollæ inserta; ANTHERÆ incumbentes, oblongæ, violaceæ. *fig. 3.*

PISTILLUM: GERMEN inferum, tetragonum, albidum, sulcatum, margine superne viridi; STYLUS filiformis albus, corollâ paulo brevior; STIGMA canaliculatum, subinflexum. *fig. 4. 5. 6.*

RECEPTACULUM paleaceum, paleis longitudine staminum, rigidis, aristatis, supremis longioribus, basi concavis, subtriangularibus; *Arista* acuminata, recta, hispidula. *fig. 8.*

ROOT biennial, simple, furnished with large fibres.
STALK from three to six feet high, branched, round, striated, hollow, spinous, spines near the base but few, near the heads very numerous, long and sharp.

LEAVES: radical leaves of the first years plant spread on the ground in a circular form, are of an oblong oval shape, bluntish at the point, notched on the edges, wrinkled, and rough with spines thinly scatter'd over the leaf, those of the stalk at least the lowermost ones, are less wrinkled, and united at the base in such a manner as to form a large cavity, which contains water after rain, of an oval pointed shape, notched, and thinly beset with spines on the edge and mid-rib, the uppermost leaves slightly united at the base, narrower, entire, and almost free from spines.

HEADS numerous, growing singly on footstalks, upright, of an oblong egg shape, somewhat pointed at top.

FLOWERS purple, first breaking forth about the middle of the head.

INVOLUCRUM composed of many leaves which are somewhat linear, rigid, beset with small spines, bending upwards, the length of the heads, unequal.

CALYX: the PERIANTHIUM of each floscule is very minute, green and edged with hairs. *fig. 1.*

COROLLA monopetalous, tubular; the *Tube* funnel-shaped, narrowed at the base, whitish and slightly villous if magnified; the *Limb* divided into four segments, upright, purple, the segments obtuse, the outermost largest. *fig. 2.*

STAMINA: four FILAMENTS, of a whitish colour, very fine, straight, inserted into the tube of the corolla; ANTHERÆ incumbent, oblong, of a violet colour. *fig. 3.*

PISTILLUM: GERMEN placed below the calyx, four corner'd, whitish, grooved, the edge on the upper part green; STYLE thread-shaped, white, a little shorter than the corolla, STIGMA channeled and bent a little in. *fig. 4. 5. 6.*

RECEPTACLE chaffy chaff the length of the Stamina, rigid, bearded, the uppermost longest, at bottom hollow, and somewhat triangular; the *Beard* or awn running out to a long, straight, and somewhat hispid point. *fig. 8.*

THE antient Botanists always considered the wild and the manured Teasel as two distinct species, and 'till the time of *Linneus* but one opinion prevailed on the subject, that great Botanist too hastily concluded that the *Dipsacus fullonum* was only a variety of the *sylvestris*, some few have implicitly followed that opinion, but *Haller* and *Jacquin* distinguished by their nice discernment and accurate descriptions unite in considering the *sylvestris* as a species totally distinct from the *fullonum*: in the manured Teasel the leaves of the Involucrum are short and horizontally extended, in the wild one they are long and encircle the head, the Paleæ in the former are always hooked at the extremity, in the latter never, tho' cultivated, many other distinctions will be pointed out when we give the history and manner of cultivating the manured Teasel.

This species grows very commonly on the edges of pastures, in uncultivated places, by road sides, and flowers from July to September.

The water collected in the basin form'd by the union of the leaves towards the bottom of the stalk is said to cure warts on the hands if several times washed with it, and hence *Ray* conjectures this plant might have received its name of *Labrum Veneris*.

Cattle in general even the As appear to avoid it; as is shewn by the dried stems and heads which remain all the winter, but there is a small Moth about twice the size of the *Euonymella*, speckled with black, which finds its way into this formidable plant, and makes a comfortable and secure domicilium of its spinous head. vid. *Mouset Teat. Insect. p. 256. Raii catal. plant. circa Cant. p. 45.*



Dipsacus sylvestris.



Scabiosa fuccifa. Devils-bit, or Meadow Scabious.

SCABIOSA *Lin. Gen. Pl. TETRANDRIA MONOGYNIA*

Cal. communis polyphyllus; proprius duplex superus. Recept. paleaceum f. nudum.

Raii. Syn. Gen. 8. HERBÆ CORYMBIFERIS AFFINES.

SCABIOSA *Succisa* corollulis quadrifidis æqualibus, foliis caulinis dentatis, floribus subglobosis.

SCABIOSA *fuccifa* corollulis quadrifidis æqualibus, caule simplici, ramis approximatis, foliis lanceolato-ovatis integerrimis. *Lin. Syst. Vegetab. p. 142.*

SCABIOSA caule trifloro, floribus convexis, foliis radicalibus ovatis, caulinis lanceolatis. *Haller. Hist. 201.*

SCABIOSA *fuccifa* *Scopoli Fl. Carniol p. 95. n. 138.*

SUCCISA glabra et hirsuta *B. pin. 269.*

MORSUS DIABOLI *Ger. em. 726.*

MORSUS DIABOLI vulgaris flore purpureo *Parkins. 491.*

SCABIOSA radice fuccifa, flore globofo. *Raii. Syn. 191. Devil's-bit.*

Hudson. Fl. Angl. ed. 2. p. 63.

Lightfoot. Fl. Scot. p. 114.

RADIX adulta crassitie fere digiti minimi, sæpe obliqua, præmorsa, fibris longis albidis prædita.

CAULIS pedalis, ad fœsquipedalem, suberectus, nobiscum raro simplex, at in duos, tres, vel plures ramos divisus, teres, hirsutus, rubescens.

FOLIA radicalia ovalia, petiolis brevibus insidentia, saturate viridia, in petiolum breviter decurrentia, integerrima, pilis longis utrinque hirsuta, caulina opposita, connata, lanceolata, rariter dentata, suprema sublinearia, integerrima.

CAPITULI *Florum* subglobosi, cærulei, solitarii, pedunculis longis nudis seu parum foliosis insidentibus.

CALYX: PERIANTHIUM *commune* multiflorum, patens, polyphyllum; foliolis ovato-acutis, ciliatis, basi subgibbosis, seriebus variis receptaculum cingentibus, eique insidentibus, quorum interiora gradatim minora; *fig. 1. 11. Perianthium* proprium duplex, inferius tetragonum, pilosum, germen includens; *fig. 2.* superius germini insidens, quinquepartitum, laciniis tetaceis, *fig. 3.*

COROLLA monopetala, tubulosa, quadrifida, laciniis obtusis, tribus inferioribus subæqualibus, superiore longiore. *fig. 4.*

STAMINA: FILAMENTA quatuor, subulata, corollæ fere duplo longiora; ANTHERÆ oblongæ, incumbentes, violaceæ; POLLEN album. *fig. 5.*

PISTILLUM: GERMEN minimum, albidum, cylindraceo-ovatum; STYLUS filiformis, dum antheræ pollinem dimittunt longitudine labii inferioris corollæ; STIGMA orbiculatum, medio depressum. *fig. 6. 7. 8.*

SEMEN oblongum, fulcato-angulosum, hirsutum, setis quinque coronatum. *fig. 10.*

ROOT when full grown, nearly the thickness of the little finger, often growing obliquely, bit off as it were or stumped at the extremity, and furnished with long whitish fibres.

STALKS from a foot to a foot and a half high, nearly upright, with us rarely single but divided into two, three or more branches, round, beset with rough hairs and of a reddish colour.

LEAVES next the root, oval, standing on short footstalks, of a deep green colour, running a little way down the footstalk, entire at the edge, cover'd on both sides with long, rough hairs; those on the stalk opposite, connate, lanceolate, sparingly toothed on the edge, the uppermost nearly linear and entire.

HEADS of the flowers nearly round, blue, single, sitting on long, naked or almost naked flower stalks.

CALYX: the general PERIANTHIUM supports many florets, is spreading and composed of many leaves, which are of an oval pointed shape, edged with hairs, somewhat gibbous at the base, surrounding and fitting on the receptacle in various rows, of which the innermost are gradually the smallest *fig. 1. 11. Perianthium* of each floret double, the lower one four corner'd, hairy, inclosing the germen, *fig. 2.* the upper one fitting on the germen, divided deeply into five segments shaped like bristles. *fig. 3.*

COROLLA monopetalous, tubular, divided into four obtuse segments, the three lowermost of which are nearly equal, the uppermost somewhat longest. *fig. 4.*

STAMINA: four FILAMENTS, tapering to a point, almost twice the length of the corolla; ANTHERÆ oblong, incumbent, of a violet colour; POLLEN white. *fig. 5.*

PISTILLUM: GERMEN very small, whitish, rarely cylindrical, inclosed within the calyx; STYLE thread shaped, while the Antheræ are shedding the pollen, the length of the lower lip of the corolla; STIGMA round, flat, with a depression in the middle. *fig. 6. 7. 8.*

SEED oblong, angular, grooved, beset with rough hairs and crown'd with five setæ or bristles. *fig. 10.*

THE Devils bit is one of those few plants which adorn our Pastures in Autumn, and is capable of adding some beauty even to the flower Garden, in which it grows much more branched than in its wild state and continues in blossom from August to the end of October; like Plantain and many other herbs, the root when full grown is stumped at the extremity.

“ Fabulous antiquity (the Monkes and Fryers as I suppose being the first inventors of the Fable) said, that the “ Devill envying the good that this Herbe might do to mankinde, bit away part of the root and thereof came the “ name of Succisa or Devils bit. *Parkinson Theat. p. 491.*

Modern practitioners not finding those wonderfull good effects have rejected it.

According to BERGIUS the root possesses an astringent quality, and the infusion of it is bitterish, but not unpleasant to the taste.

The Caterpillar of one of the Fritillary Butterflies (*Papilio maturna* of LINNÆUS, the greasy Fritillary of the Aurelians) feed on the leaves of this species.



Scabrosa Succisa.

CENTUNCULUS MINIMUS. BASTARD PIMPERNEL.

CENTUNCULUS *Lin. Gen. Pl.* TETRANDRIA MONOGYNIA.

Cal. 4 fidus. *Cor.* 4. fida, patens. *Stam.* brevia. *Caps.* 1 locularis, circumscissa.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

CENTUNCULUS *minimus. Linnæi Syst. Vegetab.* p. 133. *Spec. Plantar.* p. 169. *Flor. Suec.* p. 136.

CENTUNCULUS, *Haller. Hist.*

CENTUNCULUS, *Dillen. Catal. Gifs.* p. 161 et *App.* p. 111. *Tab.* 5.

ALSINE palustris minima, flosculis albis, fructu Coriandri exiguo. *Mentz. Pug. Icon.*

ANAGALLIS palustris. *Vaillant.* p. 12. t. 4. f. 2.

ANAGALLIDIASTRUM exiguum foliis lanceolatis alternis, flore albo fugaci et vix conspicuo. *Mitcheli nov. gener.* p. 14. t. 18. *Hudson. Fl. Angl. ed. 2.* p. 63.

RADIX annua, simplex, fibrosa.

CAULIS unguicularis ad pollicarem aut ultra, simplex seu ad basin ramosus, suberectus, teres, glaber.

FOLIA alterna, sessilia, ovata, acuta, integerrima, glabra, subcarnosa, patentia.

FLORES minimi, solitarii, axillares, sessiles.

CALYX: PERIANTHIUM quadripartitum, patens, persistens, laciniis ovato-lanceolatis, margine fuscis, corolla longioribus. *fig. 1.*

COROLLA monopetala, purpurascens, subrotata; TUBUS globosus; LIMBUS quadripartitus, erectus, laciniis ovato-acutis; demum clausis, et calyptræ instar capsulæ insidentibus. *fig. 2.*

STAMINA: FILAMENTA quatuor, corollæ breviora; ANTHERÆ minimæ, flavæ. *fig. 3.*

PISTILLUM: GERMEN subrotundum, intra tubum corollæ; STYLUS filiformis, longitudine germinis et corollæ, erectus, persistens; STIGMA simplex. *fig. 4.*

PERICARPIUM: CAPSULA globosa, unilocularis, circumscissa. *fig. 5.*

SEMINA plurima, minima, subconica. *fig. 6.*

ROOT annual, simple and fibrous.

STALK from half an inch to an inch in height or more, simple or branched at bottom, somewhat upright, round, and smooth.

LEAVES alternate, sessile, ovate, pointed, entire at the edge, smooth, somewhat fleshy and spreading.

FLOWERS very minute, single, in the axæ of the leaves, without footstalks.

CALYX a PERIANTHIUM divided deeply into four segments, spreading, and permanent; the segments ovato-lanceolate, brown on the edge, and longer than the corolla. *fig. 1.*

COROLLA purplish, monopetalous, somewhat wheel-shaped; TUBE globular; LIMB divided into four segments, which are upright, and of a pointed oval shape, finally closed and fitting like a calyptra on the top of the capsule. *fig. 2.*

STAMINA: four FILAMENTS shorter than the corolla; ANTHERÆ very minute and yellow. *fig. 3.*

PISTILLUM: GERMEN roundish, within the tube of the corolla; STYLE filiform, the length of the germen and corolla, upright and permanent; STIGMA simple. *fig. 4.*

SEED-VESSEL: a CAPSULE of a globular shape, of one cavity, dividing horizontally in the middle. *fig. 5.*

SEEDS numerous, very small and somewhat conical. *fig. 6.*

The English Botanist is here presented with a plant remarkable for the minuteness of all its parts, but more especially of its blossoms, which are not expanded so as to shew the interior structure of the flower, unless the sun shines strongly on them, then we discern its yellow stamina; DILLENIUS, who first gave to this plant the name of *Centunculus* and made a new genus of it, remarks a circumstance deserving notice, which is that the Corolla, which in most of the *rotaceæ* (wheel-shaped flowers) drops after blossoming, here continues, and covers the top of the capsule.

From the small number of places in which this plant has been described to grow, we have been led to consider it as a much scarcer plant than it really is.

The first time of my discovering the *Centunculus minimus* was this summer, when herbarizing in company with Mr. DYER; I found it on *Ashford Common* near his country seat, it there grew in tolerable plenty, in moist depressed situations, usually overflowed in the winter along with the *Littorella lacustris*, passing from *Ashford* to *Hounslow Heath*, I there found it in similar situations in greater plenty, *Spergula nodosa* in bloom, *Veronica Serpyllifolia* and *Sagina procumbens* growing in abundance near it; this was about the middle of July, when the plant had both flowers and capsules on it, and August the 21st plants from the same place removed into my garden and placed in a pot in a shady situation, were in great perfection, so that the *Centunculus* is not so fugacious a plant as many.

It generally grows about the size figured in the plate, but may, according to circumstances, be found much larger, as well as much smaller.

Its round capsules in the axæ of the leaves, like small Coriander seeds, contribute most to the discovering of it.



Centunculus minimus.

SAGINA PROCUMBENS. PROCUMBENT PEARLWORT.

SAGINA *Linnaei Gen. Pl.* TETRANDRIA TETRAGYNIA.

Cal. 4-phyllus. *Petala.* 4. *Caps.* 1-locularis, 4-valvis, polysperma.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

SAGINA *procumbens* ramis procumbentibus. *Lin. Syst. Vegetab. Sp. Plant.* 185. *Fl. Suec. n.* 155.

ALSINE tetraſtemon foliis connatis, lanceolatis. *Haller hiſt. n.* 861.

SAGINA *procumbens.* *Scopoli Fl. Carn. n.* 183.

SAXIFRAGA anglicana alfinefolia. *Gerard emac.* 568.

CARYOPHYLLUS minimus muſcoſus noſtras. *Parkinſon.* 1340.

ALSINELLA muſcoſo flore repens. *Cat. Giſſ. Raii. Syn. p.* 345. Pearl-wort, Chickweed Breakſtone.

Hudſon. Fl. Angl. ed. 2. p. 73.

Lightfoot. Flor. Scot. p. 125.

RADIX annua plerumque, in locis vero umbroſis ſæpe perennat.	ROOT generally annual, but in ſhady places often perennial.
CAULES plurimi, in umbroſis humentibus repentes, in aridis erecti, bi, triunciales, teretes, glabri, geniculati, ramoſi, proliferi.	STALKS numerous, in ſhady moiſt places creeping, in dry ſituations upright, two or three inches in length, round, ſmooth, jointed, branched and proliferous.
FOLIA ſemunciam longa, oppoſita, patentia, connata, ſubulata, mucronata, glabra, ſaturate viridia, faſciculatim ramos terminantia.	LEAVES half an inch long, oppoſite, ſpreading, joining at bottom, narrow, and tapering, terminated by a fine hair-like point, ſmooth, of a deep green colour, and terminating the branches in cluſters.
PEDUNCULI axillares, plerumque uniflori, alterni, foliis longiores, priuſquam flores aperiuntur apice nutantes.	FLOWER-STALKS growing from the axæ of the leaves, uſually ſupporting one flower, longer than the leaves, before the bloſſoms open nodding at top.
CALYX: PERIANTHIUM tetraphyllum, foliolis ovatis, concavis, perſiſtentibus, patentibus, <i>fig.</i> 1.	CALYX: a PERIANTHIUM of four leaves, which are oval, hollow, permanent, and ſpreading, <i>fig.</i> 1.
COROLLA: PETALA quatuor, minima, calyce triplo breviora, alba, patentia, ſæpe manca, <i>fig.</i> 2.	COROLLA: four PETALS, very minute, three times ſhorter than the calyx, white, ſpreading, and often imperfect, <i>fig.</i> 2.
STAMINA: FILAMENTA quatuor, capillaria; ANTHERÆ ſubrotundæ, flavæ, <i>fig.</i> 3.	STAMINA: four FILAMENTS very fine; ANTHERÆ roundiſh and yellow, <i>fig.</i> 3.
PISTILLUM: GERMEN ſubgloboſum; STYLI quatuor, ſubulati, recurvi, pubeſcentes; STIGMATA ſimplicia, <i>fig.</i> 4.	PISTILLUM: GERMEN ſomewhat globular; STYLES four, tapering, bending back a little, with an appearance of down on them; STIGMATA ſimple, <i>fig.</i> 4.
PERICARPIUM: CAPSULA ſubovata, pellucida, calyce patulo infidens, unilocularis, quadrivalvis, <i>fig.</i> 5.	SEED-VESSEL: a CAPSULE ſomewhat oval, and pellucid, fitting on the ſpreading calyx, having one cavity and four valves, <i>fig.</i> 5.
SEMINA numeroſa, minima, ruſa, receptaculo affixa.	SEEDS numerous, very ſmall, of a reddiſh brown colour, and affixed to a receptacle.

Few plants are more liable to miſlead the young Botanist than this, as there are few that aſſume ſo great a variety of appearance, in moiſt ſhady ſituations, eſpecially if growing on the ground, it creeps and forms a thick cloſe turf and looks like a patch of graſs, the leaves are of a fine deep green and rather fleſhy, on walls eſpecially if it be the ſhady ſide, it frequently grows upright even to the height of fix inches, and is in every reſpect more ſlender, on walls that are expoſed to the ſun it ſeldom grows more than two inches high, under all this diverſity, the ſingular appearance of its ſeed veſſels will in general eaſily diſtinguiſh it, being placed on the center of the expanded permanent calyx like a cup on a faucer.

Its petals are very minute, generally imperfect and ſometimes wanting.

It is not unuſual to meet with it, having one fifth part of its fructification encreaſed.

Being fond of a gravelly ſoil it often becomes a troubleſome weed in gravel walks.

It continues to flower during the whole of the ſummer.

In the leaves we have a good example of the *folium mucronatum*.



Sagina procumbens

MYOSOTIS SCORPIOIDES. MOUSE-EAR SCORPION-GRASS.

MYOSOTIS *Lin. Gen. Pl. PENTANDRIA MONOGYNIA.*

Cal. hypocrateriformis, 5. fida, emarginata: faux clausa fornicibus.

Raii Syn. Gen. 13. HERBÆ ASPERIFOLIÆ.

MYOSOTIS *Scorpioides* feminibus lævibus, foliorum apicibus callosis. *Lin. Syst. Vegetab. Sp. Pl. p. 188. Fl. Suecic. n. 157.*

SCORPIURUS radice longa fibrata perenni. *Hall. bist. 591.*

MYOSOTIS *Scorpioides. Scopoli. n. 185.*

ECHIUM scorpioides palustre *Baubin. pin. 254.*

MYOSOTIS scorpioides palustris. *Ger. emac, 337.*

MYOSOTIS scorpioides repens. *Park. 691. Raii Syn. p. 222. n. 4. Water Scorpion-Grass. Hudson. Fl. Angl. ed 2. p. 78. Lightfoot. Fl. Scot. p. 232.*

RADIX	per aquam longe excurrit, et fibrillas e geniculis dimittit.	ROOT	runs out to a great length through the water, and send down fibres from the joints.
CAULIS	basi repens, dein erectus, pedalis aut bipedalis, teres, solidus, ramosus, glaber, sæpe hirsutus.	STALK	creeping at bottom, afterwards upright, from one to two feet high, round, solid, branched, smooth, but often hairy.
FOLIA	alterna, lanceolata, sessilia, subdecurrentia, glabra five hirsuta, margine sæpe revoluta.	LEAVES	alternate, lanceolate, sessile, slightly decurrent, smooth or hirsute, the edge often roll'd back.
RACEMI	longi, dichotomi, divaricati, apicibus involutis.	RACEMI	long, dichotomous; divaricating, the tops roll'd in.
FLORES	pedunculati, secundi; pedunculis alternis, erectis.	FLOWERS	standing on footstalks and growing all one way; footstalks alternate and upright.
CALYX	PERIANTHIUM monophyllum, tubulatum, quinque-dentatum, persistens. <i>fig. 1.</i>	CALYX	a PERIANTHIUM of one leaf, tubular, having five teeth and permanent. <i>fig. 1.</i>
COROLLA	monopetala, hypocrateriformis, <i>Tubus</i> longitudine calycis; <i>Limbus</i> planus, semiquinquefidus, <i>laciniis</i> obtusis, subemarginatis; <i>Faux</i> clausa squamulis quinque convexis, prominentibus, luteis. <i>fig. 2. 3. 6.</i>	COROLLA	monopetalous, salver-shaped, the <i>Tube</i> the length of the calyx: the <i>Limb</i> flat, divided into five blunt segments with a slight notch in each; the mouth closed with five convex prominent yellow scales or glands. <i>fig. 2. 3. 6.</i>
STAMINA	FILAMENTA quinque in collo tubi, brevissima: ANTHERÆ oblongæ, flavæ, apicibus tumidis, tectæ. <i>fig. 4.</i>	STAMINA	five Filaments, very short, placed in the neck of the tube; ANTHERÆ oblong, yellow, the tips swelled, and enclosed. <i>fig. 4.</i>
PISTILLUM	GERMINA quatuor; STYLUS filiformis, longitudine tubi corollæ; STIGMA obtusum.	PISTILLUM	GERMINA four; STYLE thread shaped, the length of the tube of the corolla; <i>Stigma</i> blunt.
PERICARPIUM	nullum, <i>Calyx</i> semina in sinu fovens.	SEEDVESSEL	wanting, the <i>Calyx</i> containing and enclosing the seeds.
SEMINA	quatuor, ovata, glabra, nigri cantia, nitida. <i>fig. 5.</i>	SEEDS	four, oval, smooth, blackish, and shining. <i>fig. 5.</i>

Few plants assume so great a variety of appearances as the *Myosotis scorpioides*, few accomodate themselves to such a diversity of soil, and situation; the very different habit which this plant assumes in dry, and wet situations, has induced HALLER to divide it into two species, viz. annual and perennial, the aquatic one having according to him a perennial, and the other an annual root; we might perhaps be nearly as much justified in considering some others of its striking varieties as species also, particularly the one with yellow flowers and the larger flowered one figured by RAY, but as LINNÆUS and the generality of modern Botanists agree in considering them all but as one species, we rather chuse to acquiesce in their determination; should future observation or experiment give us any reason to suppose them species, we shall be very happy to do justice to the opinion of Baron HALLER.

The aquatic variety here figured grows very commonly in wet ditches and rivulets, its flowers especially in shady situations being much larger and more conspicuous than when growing in a dry soil are often remarked for their beauty and delicacy, they somewhat resemble blue enamel, and are a very pretty ornament for the edges of ponds.

On dry ground it usually occurs in fallow fields, and gardens but little cultivated; the variety with yellow flowers is not unfrequent on dry sandy banks, and sometimes on walls; they all flower from May to August and September.

LINNÆUS suspects its being poisonous to sheep, vid. *Stillingtons miscel. tracts. p. 355. ed. 2.*







Lapimachia Vismularia

Saxonia, Schleib.

LYSIMACHIA NUMMULARIA. MONEYWORT.

LYSIMACHIA *Linnaei*. Gen. Pl. PENTANDRIA MONOGYNIA.

Cor. rotata. Caps. globosa, mucronata, 10-valvis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

LYSIMACHIA *Nummularia* foliis subcordatis, floribus solitariis, caule repente. *Lin. Syft. Veget.* p. 165.

Sp. Pl. p. 211. *Fl. Suecic.* p. 63.

LYSIMACHIA caule prostrato, foliis subrotundis, petiolis alaribus unifloris. *Haller. Hist. Helv.* n. 629.

LYSIMACHIA *Nummularia*. *Scopoli. Fl. Carniol.* n. 216.

NUMMULARIA major lutea. *Baubin, Pin.* 309.

NUMMULARIA. *Gerard. emac.* 630.

NUMMULARIA vulgaris. *Parkinson.* 555.

Raii. Synop. p. 283, Moneywort, or Herb Two-pence.

Oeder. Flor. Dan. Ic. 493.

Hudson. Fl. Angl. ed. 2. p. 87.

Lightfoot. Fl. Scot. p. 138.

RADIX perennis, fibrosa, fibris simplicibus, descendibus.

CAULES plures, simplices, procumbentes, versus apicem repentes et subramosi, pedales et ultra, læves, geniculati, utrinque profunde canaliculati, five tetragoni.

FOLIA ovato-orbiculata, opposita, erecta, glabra, subvenosa, parum undulata, petiolis brevibus, latis, decurrentibus, infidentia.

PEDUNCULI plerumque bini, oppositi, erecti, longitudine foliorum, angulati, versus apicem sensim incrassati.

FLORES lutei, majusculi, subrotati.

CALYX: PERIANTHIUM pentaphyllum, foliolis cordato-acutis, erectis, subcarinatis, marginibus, basi reflexis, *fig.* 1.

COROLLA quinquepartita, laciniis ovatis, acutis, patentibus, calyce duplo longioribus, suberosis, margine glandulosa, adhibito microscopio, *fig.* 2.

STAMINA: FILAMENTA quinque, subulata, erecta, glandulosa, corollâ breviora; ANTHERÆ sagittatae, *fig.* 3, 4.

PISTILLUM: GERMEN subrotundum: STYLUS filiformis, staminibus paulo longior, nudus: STIGMA parvum, obtusum, *fig.* 5, 6.

PERICARPIUM plerumque abortat.

ROOT perennial and fibrous, the fibres simple, and striking downward.

STALKS numerous, simple, trailing, towards the top creeping and somewhat branched, a foot or more in length, smooth, jointed, deeply channeled on each side, or four cornered.

LEAVES of a shape betwixt ovate and round, opposite, upright, smooth, somewhat veiny, and a little waved, fitting on short broad foot-stalks, which run down the main stalk.

FLOWER-STALKS growing generally two together, one opposite the other, upright, the length of the leaves, angular, gradually enlarged towards the end.

FLOWERS yellow, large in proportion to the leaves, and somewhat wheel-shaped.

CALYX: a PERIANTHIUM of five leaves, heart-shaped and pointed, somewhat keeled, the edges at bottom turning back, *fig.* 1.

COROLLA deeply divided into five segments, which are oval, pointed, and twice the length of the calyx, slightly jagged and glandular on the edge, if viewed with a microscope, *fig.* 2.

STAMINA: five FILAMENTS, tapering, upright, glandular, and shorter than the corolla: ANTHERÆ arrow-shaped, *fig.* 3, 4.

PISTILLUM: GERMEN nearly round: STYLE thread-shaped, a little longer than the stamina: STIGMA small and blunt, *fig.* 5, 6.

SEED-VESSEL rarely comes to perfection.

IT often happens that those plants which increase much while in flower, either by their roots or stalks, seldom produce ripe seeds: this is the case with the *Butterbur* and *Periwinkle*, as well as the present plant, on which, though I have examined a great number of specimens, I have not hitherto been fortunate enough to discover capsules ripe and perfectly formed; yet it is probable, that in some particular situations, such may be found.

The name of *Moneywort* has been given to this species from the roundness of its leaves, by which it is in one instance, distinguished from the *Lysimachia nemorum*. It grows in meadows, particularly on the edges of the ditches; also under hedges in moist situations; and is too common to need any particular place of its growth to be pointed out.

In a moist situation, no plant thrives more in a garden, nor with less trouble: it continues a long while in blossom: but without this advantage, the beauty and singularity of its foliage, is sufficient to recommend it.

The taste of the leaves is subastringent, and very slightly acid; hence they stand recommended by *BOERHAVE* in the hot scurvy, and in uterine and other hæmorrhages. But their effects are so inconsiderable, that common practice takes no notice of them. *Lewis's Disp.* p. 184.

It is eaten by Kine and Sheep, not much relished by Goats, and refused by Horses. *Lin. Amæn. Acad. Pan. Suec.*

ANAGALLIS TENELLA. BOG PIMPERNEL.

ANAGALLIS *Lin. Gen. Pl.* PENTANDRIA MONOGYNIA.

Cor. rotata. *Caps.* circumscissa.

Raii. Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI FLORE MONOPETALO.

ANAGALLIS *tenella* foliis ovatis acutiusculis, caule repente. *Lin. Syst. Vegetab.* p. 165. *Sp. Pl.* 211.

LYSIMACHIA *tenella.* *Hudson. Fl. Angl. ed. 2.* p. 87.

ANAGALLIS *tenella* *Lightfoot Fl. Scot.* p. 139.

NUMMULARIA minor flore purpurascente. *Bauhin pin.* 310. *Ger. emac.* 630. *Park* 555. *Raii. Syn.* p. 283. Purple-flowered Moneywort.

RADIX perennis, fibrosa.

CAULES plurimi, bipollicares aut palmares, teretes, glabri, repentes, ramosi, geniculis purpureis.

FOLIA opposita, parva, subrotunda, integerrima, utrinque glabra, petiolis brevissimis infidentia.

PEDUNCULI axillares, bini, longi, etiam pollicares, erecti, demum incurvati, simplices, uniflori.

FLORES subcampanulati, pro ratione plantæ majusculi, venis rubellis, saturatoribus picti, *fig.* 3. 4.

CALYX: PERIANTHIUM quinquepartitum, laciniis lanceolatis, concavis, rubro punctatis, corollâ brevioribus. *fig.* 1. 2. 10.

COROLLA rotata, quinquepartita, laciniis ovatis, erectis, acutiusculis, carnis, venis saturatoribus striatis. *fig.* 3. 4.

STAMINA: FILAMENTA quinque, alba, pilosissima, pilis albis, suberectis, articulatis: ANTHERÆ ovatæ, flavæ. *fig.* 5. 6. 7. 8.

PISTILLUM: GERMEN subrotundum; STYLUS subulatus, antheris paulo longior, STIGMA simplex. *fig.* 9.

PERICARPIUM: CAPSULA circumscissa, magnitudine feminis coriandri, rotunda, pallida, lævis. *fig.* 11. 12.

SMINA plurima, subangulata, apice truncata. *fig.* 13. 14.

ROOT perennial and fibrous.

STALKS numerous from two to four inches long, round, smooth, creeping, branched, the joints purple.

LEAVES opposite, small, nearly round, entire at the edge, smooth on both sides, fitting on very short foot-stalks.

FLOWER-STALKS growing in pairs from the axils of the leaves, even an inch in length, upright, but finally bent downward, single, and supporting one flower on each.

FLOWERS somewhat bell-shaped, rather large for the size of the plant, of a reddish colour, and painted with deeper colour'd veins. *fig.* 3. 4.

CALYX: a PERIANTHIUM deeply divided into five segments, which are lanceolate, concave, dotted with red, and shorter than the corolla. *fig.* 1. 2. 10.

COROLLA wheel-shaped, deeply divided into five segments, which are ovate, upright, a little pointed, of pale red, striped with veins of a deeper colour. *fig.* 3. 4.

STAMINA: five FILAMENTS, of a white colour and very hairy, the hairs upright, white also and jointed; ANTHERÆ ovate and of a yellow colour. *Fig.* 5. 6. 7. 8.

PISTILLUM: GERMEN roundish; STYLE tapering, a little longer than the Antheræ; STIGMA simple. *Fig.* 9.

SEED VESSEL: a round CAPSULE, smooth, of a pale colour, about the size of a Coriander seed, splitting horizontally in the middle. *Fig.* 11. 12.

SEEDS numerous, somewhat angular and cut off at top. *Fig.* 13. 14.

IF the horizontal division of the capsule, joined to the hairiness of the filaments, be the characters which constitute the Genus *Anagallis*, this plant is undoubtedly with much propriety referred to it by LINNÆUS, and removed from that of *Lysimachia* with which it was before connected; for it not only has an evident *Capsula circumscissa*, but the hairs of the filaments are also jointed, in which they resemble those of the *Anagallis arvensis* heretofore described and figured in the beginning of this work—Producing ripe capsules but sparingly, and growing in situations not always the easiest of access, it is no wonder that these discoveries should be of modern date.

Mr. HUDSON in the second edition of his *Flora Anglica* without assigning any reasons, chuses to continue it a *Lysimachia*.

It is a very common plant on Bogs, indeed there is scarce a bog of any extent on which it is not to be found, the boggy part of *Shirley-Common* affords it most abundantly, it flowers in the months of June, July, and August, and towards the end of the latter ripens its capsules.

VINCA MINOR. SMALL PERIWINKLE.

VINCA *Lin. Gen. Pl.* PENTANDRIA MONOGYNIA.

Raii Syn. Gen. 17 HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

VINCA *minor* caulibus procumbentibus, foliis lanceolato ovatis, floribus pedunculatis. *Lin. Syst. Vegetab. p.* 209. *Sp. Pl.* 304.

PERVINCA caulibus procumbentibus, foliis ovato lanceolatis, petiolis unifloris. *Haller. hist.* 572.

CLEMATIS daphnoides minor. *B. Pin.* 301.

VINCA PERVINCA minor. *Ger. emac.* 894.

VINCA PERVINCA vulgaris. *Parkins.* 380. *Raii Syn.* p. 268. Periwinkle.

Hudson Fl. Angl. ed. 2. p. 91. *Lightfoot Fl. Scot. p.* 147.

RADIX perennis, repens, fibrosa.

CAULES floriferi erecti, simplices, dodrantes, aut pedales, in sepibus etiam, vepres sustentati ad altitudinem humanam quandoque evehuntur, debiles, teretes, glabri, utrinque fulco obsolete notati, perfecta florescentia humi repent.

FOLIA opposita, petiolata, petiolis foliis ipsis quadruplo brevioribus, sempervirentia, ligustrina, ovato-lanceolata, glabra, margine integerrima, nuda; in caulibus floriferis lætius virentia.

CAULIS FLORIFERUS unicum aut duos flores, etiam plures aliquando producit, cæruleos, purpureosve, pulchellos, oculo albo, ad plenitudinem pronos.

PEDUNCULI uniflori, axillares, alterni, suberecti, foliis duplo fere longiores, teretes, glabri, purpurescentes.

CALYX: PERIANTHIUM quinquepartitum, tubo corollæ triplo brevior, persistens, laciniis erectis, acutis, glabris. *fig. 1.*

COROLLA monopetala, hypocrateriformis; *Tube* inferne cylindraceus, superne latior, lineis quinque insculptus, rigidulus, externe nitidus, interne villosus; *Limb* horizontalis, quinquepartitus, laciniis apici tubi adnatis, extrorsum latioribus, oblique truncatis.

STAMINA: FILAMENTA quinque, brevissima, inflexa, retroflecta, superne dilatata; ANTHERÆ membranaceæ, obtusæ, incurvæ, pilosæ, margine utrinque fariniferæ. *fig. 9. 10.*

PISTILLUM: GERMINA duo, subrotunda, compressa corpusculis duobus ad latera, nitidis, longitudine germinum; STYLUS obverse conicus, longitudine staminum; STIGMATA duo, inferius orbiculatum, planum, margine viscidum, superius capitatum, pilosum, albissimum. *fig. 3. 4. 5. 6. 7. 11.*

ROOT perennial, creeping and fibrous.

STALKS producing the flowers, are upright, simple, from nine inches to a foot in height, and sometimes in hedges supported by the bushes, they are raised to the height of six feet, weak, round, smooth, marked on each side with a groove faintly impressed, when out of bloom creeping on the ground.

LEAVES opposite, standing on footstalks four times shorter than the leaves themselves, evergreen, somewhat like those of Privet, oval, and pointed, smooth and shining, the edge perfectly entire, and naked, those on the flowering stalks of the most lively colour.

THE FLOWERING STALK produces one or two handsome flowers, sometimes more, of a blue or purple colour, with a white eye, and much disposed to be double.

FLOWER-STALKS supporting one flower, axillary, alternate, nearly upright, almost twice the length of the leaves, round, smooth and shining.

CALYX: a PERIANTHIUM deeply divided into five segments, three times shorter than the corolla, permanent, the segments upright, pointed and smooth. *fig. 1.*

COROLLA monopetalous, salver-shaped; *Tube* below cylindrical, above spreading, having five grooves, somewhat rigid, externally shining, internally villous; *Limb* horizontal, deeply divided into five segments, which appear to grow to the top of the tube, externally broadest and cut off obliquely.

STAMINA: five FILAMENTS, very short, bent in, and afterwards back again, dilated above; ANTHERÆ membranous, blunt, bent in, hairy, producing its farina on each side of the edge.

PISTILLUM: GERMINA two, roundish, somewhat flattened at the sides by two shining corpuscles of the length of the germina; STYLE inversely conical, the length of the stamina; STIGMATA two, the lowermost orbicular, flat, and clammy on the edge, the uppermost forming a little tuft of very white hairs.

WHOEVER looks into the tube of this flower with any degree of attention, must be struck with the wisdom shewn in the formation of the parts contained within it; in all the plants I have seen I do not recollect any greater instance of care taken to preserve the tender parts of the fructification, each Anthera is terminated by a membrane which bends over at top, and the membranes of all the Antheræ closing together, effectually seclude every thing which might injure the parts of the fructification below them, distinguished not less by the delicacy than the singularity of their structure. The filaments in their shape somewhat resemble a note of interrogation, the Antheræ in their structure are very similar to those of the violet, and open inwardly in the same manner: the style which in most flowers is broadest at top is here slenderest; they are two in number, but so closely united, that, without a magnifier, the division is scarce to be perceived; the stigmata, according to Linnæus, are two in number; it is most probable, however, that the lowermost, which is flat with a glutinous edge, and which forms a kind of ring round the styles, is the true stigma; the top is a little elevated above the stigma, and appears like a round white ball, which, when magnified, is found to consist of a number of hairs diverging from one center, in the microscope it is a very pleasing sight; the ripe seed vessel of this plant I have not been able to discover; they are most probably rarely produced.

This species of Periwinkle varies much in the colour of its blossoms, which are sometimes purple, sometimes of a pale blue colour, and sometimes white; in the gardens it is also sold with divers sorts of variegated foliage and double blossoms.

At the foot of a shelter'd hedge exposed to the morning sun, it flourishes very much, especially if the soil be moist, and affords a very pretty ornamental flower in the spring months, nor is it so fugacious as many, but will continue in blossom a month or six weeks.

It may probably be found wild in divers places about London; as yet, however, I have noticed it in one spot only, viz. in the hedge of a field on the left hand side of Lordship Lane near Dulwich, where it had every appearance of being in a wild state.



CHENOPODIUM BONUS HENRICUS. GOOD KING HENRY.

CHENOPODIUM. *Lin. Gen. Pl.* PENTANDRIA DIGYNIA.

Cal. 5 phyllus, 5 gonus, *Cor.* o. *Sem.* 1. lenticulare, superum.

Raii. Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

CHENOPODIUM *Bonus Henricus* foliis triangulari sagittatis integerrimis, spicis compositis aphyllis axillaribus. *Lin. Syst. Vegetab.* p. 216. *Sp. Pl.* p. 318. *Fl. Succic. n.* 214.

CHENOPODIUM foliis triangularibus, undulatis, integerrimis, subtus farinosus. *Haller. hist. n.* 1578.

CHENOPODIUM *Bonus Henricus.* *Scopoli. Fl. Carn.* 278.

LAPATHUM unctuosum folio triangulo. *Baub. pin.* 115.

BLITUM perenne. *Bonus Henricus* dictum. *Bonus Henricus* *J. B.* II. 965. *Ger. emac.* 329.

LAPATHUM unctuosum. *Park.* 1225. *Raii Syn.* p. 156. common English Mercury, or All-good.

Hudson Fl. Angl. ed. 2. p. 104. *Lightfoot Fl. Scot.* p. 147.

RADIX perennis, ramosa.

CAULIS pedalis, ad sesquipedalem, erectus, ad basin teres, laevis, superne striato-angulatus, farinâ diaphanâ adpersus, ramosus.

FOLIA petiolata, alterna, sagittato-triangularia, laevia, subtus venosa, pallidiora, et farinosa, subundulata, integerrima.

SPICA florum terminalis, lutescens, conica, nuda, pulverulenta, inferne composita, superne glomerata, cylindrica.

CALYX: PERIANTHIUM monophyllum, quinquepartitum, laciniis subcuneiformibus, concavis, margine membranaceis, apice dentato erosis. *fig. 1.*

COROLLA nulla

STAMINA: FILAMENTA quinque, subulata, calyce paulo longiora; ANTHERÆ subrotundæ, didymæ, flavæ. *fig. 2.*

PISTILLUM: GERMEN ovatum, compressum; STYLUS nullus; STIGMA bipartitum, tripartitum, aut etiam quadripartitum, laciniis acuminatis, albidis, patentibus. *fig. 4.*

PERICARPIUM nullum, calyx continens semen unicum, majusculum, subreniforme, compressum, calycem excedens, epidermide tenui obtectum. *fig. 5.*

FLORES FEMINEI, plurimi, intra hermaphroditos.

ROOT perennial and branched.

STALK from a foot to a foot and a half in height, at bottom round and smooth, upwards finely grooved, and somewhat angular, covered with transparent powdery globules, and branched.

LEAVES standing on footstalks, alternate, triangularly arrow-shaped, smooth, underneath veiny, of a paler colour and mealy, somewhat waved, and entire at the edge.

SPIKE of flowers terminal, yellowish, conical, naked, mealy, below branched, above clustered and cylindrical.

CALYX: a PERIANTHIUM of one leaf, deeply divided into five segments, which are somewhat wedge-shaped, concave, membranous at the edge, and jagged at top. *fig. 1.*

COROLLA wanting.

STAMINA: five FILAMENTS tapering, a little longer than the calyx; ANTHERÆ roundish, double, and yellow. *fig. 2.*

PISTILLUM: GERMEN ovate, flattened; STYLE wanting; STIGMA divided to the base into two, three, or four segments, which run out to a point, are of a whitish colour, and spreading. *fig. 4.*

SEED-VESSEL wanting, the calyx containing a single seed, large, somewhat kidney-shaped, flattened, exceeding the calyx, and covered with a fine skin. *fig. 5.*

FEMALE FLOWERS numerous among the hermaphrodite ones.

Several plants of the Orach and Goosefoot kind are gathered while young and tender by the poorer sort of people to supply the place of Spinach and other greens, one of them is the present plant, whose excellence as a pot-herb seems not to be so generally known as it deserves; at *Boston* in *Lincolnshire*, and probably in many other places in the kingdom, they are sensible of its value, it is there universally cultivated, every one possessing the least spot of ground has his plantation of English Mercury; by them it is considered as superior to Spinach, and always preferred to it, yet, strange to tell! this usefull herb is unknown to the greatest Herb-market in the world, *Covent-Garden*.

To produce this desirable plant in its greatest perfection, sow the seed about March on a deep loomy soil prepared as for Asparagus, let the seedlings continue to grow till Autumn, about the middle of September, taking advantage of a wet season, set them out on a bed similar to that on which they were sown, about a foot apart, keep them clear of weeds, and the ensuing Spring and Summer the plant will afford an abundant crop, the young shoots with their leaves and tops are to be cut as they spring up, and being a perennial plant it will continue thus plentifully to produce for a great number of years; in the winter the bed is to be covered with dung, which should be raked off as the Spring advances, when the earth around the roots is carefully to be dug or forked up.

As a medicine this herb is ranked among the emollients, but rarely made use of in practice; the leaves are applied by the common people for healing slight wounds, cleansing old ulcers, and other like purposes.

It grows in uncultivated places, by road-sides, and particularly in the environs of Farm-yards, like most of the same genus appearing to be fond of dung; it produces both flowers and seeds from May to August.

From all the other Chenopodiums it differs in having a perennial root.

The name by which it is most commonly called is that of *Mercury*, a name which tends to confound it with the other Mercuries (*Mercurialis annua*, and *perennis*) and which it were better if possible to get rid of by using the old botanic name of *Good King Henry*.



Chenopodium Bonus Henricus.



Sambucus Ebulus.

SAMBUCUS EBULUS. DWARF ELDER.

SAMBUCUS *Lin. Gen. Pl.* PENTANDRIA TRIGYNIA.

Cal. 5-partitus. *Cor.* 5-fida. *Bacca.* 3-sperma.

Raii Syn. Gen. ARBORES ET FRUTICES.

SAMBUCUS *Ebulus* cymis tripartitis, stipulis foliaceis, caule herbaceo. *Lin. Syst. Veget.* p. 244.
Sp. Pl. p. 385. *Fl. Suecic.* n. 266.

SAMBUCUS herbacea; floribus umbellatis. *Haller. hist.* n. 671.

SAMBUCUS *Ebulus.* *Scopoli Fl. Carn.* n. 371.

SAMBUCUS humilis seu Ebulus. *Bauh. Pin.* 456.

EBULUS five Sambucus humilis. *Ger. emac.* 1426. *Parkins.* 209. *Raii Syn.* 461. Dwarf-Elder;
Walwort, or Danewort.

Hudson. Fl. Angl. ed. 2. p. 130.

Lightfoot. Fl. Scot. p. 171.

RADIX repens, vix eradicanda.

CAULIS orgyalis, herbaceus, teretiusculus, glaber, undique striato-fulcatus; subgeniculatus: geniculis purpureis; superne ramosus, ramis oppositis, erectis.

FOLIA opposita, pinnata, quadrijuga; seu sexjuga, cum impari, stipulata seu exstipulata; foliolis ovato-lanceolatis, basi inæqualibus, ferratis, venosis, supra glabris, subtus pubescenti-scabris, pallidioribus, inferioribus sæpe lobato-incisis.

STIPULÆ quaternæ, petiolatæ, subcordatæ, serratæ, superioribus sæpe recurvatis.

CORYMBUS terminalis, tripartitus, ramis subnudis, exterioribus teretiusculis, intermedio compresso; compositus e cymis pluribus pedunculatis, nudis; floribus pedicellatis.

CALYX: PERIANTHIUM monophyllum, superum, quinque-dentatum, dentibus ovato-acutis; erectis, purpureis: *fig. 1.*

COROLLA monopetala, rotata, quinquepartita, laciniis ovato-acutis, concavis, reflexis, externe ad apicem purpurascens et rugosis. *fig. 2.*

STAMINA: FILAMENTA quinque; suberecta, tetiuscula, crassa, rugosa, alba, longitudine corollæ; ANTHERÆ primum rubicundæ, magnæ, didymæ, sibi invicem paululum remotæ, parallelæ, oblongæ, supra sulcatæ, demum nigricantes. *fig. 3.*

PISTILLUM: GERMEN inferum, subovatum, obsolete angulatum, glabrum; STYLUS nullus; STIGMATA tria, subreniformia, colorata, glutinosa. *fig. 4. 5.*

ROOT creeping, scarce to be eradicated.

STALK six feet high, herbaceous, roundish, smooth, channeled, joints somewhat enlarged, purplish, branched above, the branches opposite and upright.

LEAVES opposite, pinnated, having four or six pair of pinnæ with an odd one at the extremity, with or without stipulæ; the pinnæ or small leaves ovato-lanceolate, unequal at the base, serrated, veiny, smooth above, downy with a slight roughness underneath, and whiter, the lowermost often cut into lobes.

STIPULÆ growing in fours, standing on foot-stalks, somewhat heart-shaped, serrated, the uppermost often bent back.

CORYMBUS terminal, divided into three branches, which are somewhat naked, the outer ones roundish, the middle one flattened, composed of numerous cymæ, standing on partial foot-stalks, blossoms also furnished with foot-stalks:

CALYX: a PERIANTHIUM of one leaf, placed above the germen, having five teeth, which are short, broad, pointed, upright and purple. *fig. 1.*

COROLLA monopetalous, wheel-shaped, divided into five segments, which are ovate, pointed, hollow and turn'd back, externally at the tip purplish and wrinkled. *fig. 2.*

STAMINA: five FILAMENTS, nearly upright, roundish, thick, wrinkled, white, the length of the corolla; ANTHERÆ first reddish, large, double, at a little distance from each other, parallel, oblong, grooved above, lastly becoming of a blackish colour. *fig. 3.*

PISTILLUM: GERMEN placed below the corolla, somewhat ovate, faintly angular, and smooth; STYLE none, STIGMATA three, somewhat kidney-shaped, coloured, and glutinous. *fig. 4. 5.*

THE leaves, roots, and bark of the dwarf Elder have a nauseous, sharp, bitter taste, and a kind of acrid ungratefull smell; they are all strong cathartics, and as such are recommended in Dropsies, and other cases where medicines of that kind are indicated. The bark of the root is said to be the strongest; the leaves the weakest; but they are all too churlish medicines for general use: they sometimes evacuate violently upwards, almost always nauseate the stomach and occasion great uneasiness of the bowels: by boiling they become like the other drafts milder and more safe in their operation; the berries of this plant are likewise purgative, but less virulent than the other parts: a rob prepar'd from them may be given to the quantity of an ounce as a cathartic; and in smaller ones as a aperient and deobstruent in chronic disorders. In this last intencion it is said by HALLER to be frequently used in Swisserland in the dose of a dram. *LEWIS's Disp.* p. 137.

In most Physic Gardens this plant is cultivated, but is rarely met with wild about London; I have observed it two places only, the one in a hedge which surrounds a part of Mr. BEAUFY's Garden, Cupers-Bridge, Lambeth Marsh, the other in a Lane leading down to Upton, Essex, by the garden wall of the late Dr. FOTHERGILL.

It differs from the common Elder in many respects, particularly in being herbaceous, and in having a root which creeps and is very troublesome in gardens, its leaves also are narrower with more numerous pinnæ attached to the mid-rib; the lower pinnæ of which are subject to a singular variation as is shewn in the figure.

Not less does it differ in its fructification as will appear from the description to which the reader is referred, It flowers in June and July, and but rarely ripens its berries.

LINUM CATHARTICUM. PURGING FLAX.

LINUM *Lin. Gen. Pl.* PENTANDRIA PENTAGYNIA *Cal.* 6 phyllus. *Pet* 5. *Caps* 5. valvis, 10 locularis. *Sem.* solitaria.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

LINUM *catharticum* foliis oppositis, ovato-lanceolatis, caule dichotomo, corollis acutis. *Lin. Syst. Vegetab.* p. 250. *Sp. plant.* p. 401. *Fl. Suecic.* p. 100.

LINUM foliis conjugatis, ovatis, calycibus aristatis, patulis, lanceolatis. *Haller Hist.* n. 839.

LINUM *catharticum.* *Scopoli. Fl. Carn.* n. 389.

LINUM pratense flosculis exiguis. *Baubin. pin.* 214.

LINUM fylvestre catharticum. *Ger. emac.* 560. *Parkinson.* 1336. *Raii Syn.* p. 362. purging or wild Dwarf-Flax or Mill-mountain.

Lightfoot Fl. Scot. p. 174.

Hudson. Fl. Angl. ed. 2. p. 134.

RADIX annua, fibrosa.

CAULIS palmaris aut dodrantalis, erectus, teres, lævis, superne ramosus.

FOLIA opposita, elliptica, subrecta, lævia, integerima, glauca, in summis ramis alterna, lanceolata.

FLORES albi, ante anthesin penduli.

CALYX: PERIANTHIUM pentaphyllum, persistens, foliolis lanceolatis, erectis, carinatis. *fig.* 1.

COROLLA pentapetala, petalis Calyce duplo longioribus, patentibus, ovatis, acutis, prope basin leviter cohærentibus, trinerviis, unguibus flavis. *fig.* 2.

STAMINA: FILAMENTA quinque æqualia, subulata, basi latiora, subcoalescentia; ANTHERÆ subrotundæ, flavæ. *fig.* 3.

PISTILLUM: GERMEN subovatum, angulatum; STYLI quinque, longitudine staminum; STIGMATA rotunda, flava. *fig.* 4. 5.

PERICARPIUM: CAPSULA globosa, angulata, decemlocularis, quinquevalvis, Calyce tecta. *fig.* 6.

SEMINA solitaria, ovata, planiuscula, flava, nitida. *fig.* 7.

ROOT annual, and fibrous.

STALK from three to nine inches high, upright, round, smooth, branched at top.

LEAVES opposite, elliptical, nearly upright, smooth, perfectly entire, glaucous, on the tops of the branches alternate, and lanceolate.

FLOWERS white, before they blow pendulous.

CALYX: a PERIANTHIUM of five leaves and permanent, the leaves lanceolate, and upright, with a prominent midrib. *fig.* 1.

COROLLA composed of five petals, which are twice the length of the Calyx, spreading, oval and pointed, slightly uniting at the base, having three ribs and yellow claws. *fig.* 2.

STAMINA: five FILAMENTS of equal length, tapering, broadest and slightly uniting at bottom; ANTHERÆ roundish and yellow. *fig.* 3.

PISTILLUM: GERMEN angular; STYLES five, the length of the Stamina; STIGMATA roundish, and yellow. *fig.* 4. 5.

SEED-VESSEL: a round, angular CAPSULE, with ten cavities and five valves cover'd with the Calyx. *fig.* 6.

SEEDS single, oval, flattish, yellow and shining. *fig.* 7.

THIS small and delicate species of Flax is a very common plant throughout the kingdom on hilly situations particularly where the soil is chalky, it also sometimes found in Meadows.

It flowers in June, July and August.

An infusion in water or whey of a handfull of the fresh leaves, or a dram of them in substance when dried, are said to purge without inconvenience. *Lewis Disp.* p. 168.



Lium catharticum

Linnaeus Schult.



Fritillaria Meleagris.

Fritillaria Meleagris. Common Fritillary.

FRITILLARIA *Lin. Gen. Pl. Hexandria Monogynia.*

Cor. 6. petala, campanulata, supra ungues cavitate nectarifera. *Stam.* longitudine corollæ.

Raii. Syn. Gen. 26. *HERBÆ RADICE BULBOSA PRÆDITÆ.*

FRITILLARIA *Meleagris* foliis omnibus alternis, caule unifloro. *Lin. Syst. Vegetab. p.* 269. *Sp. Pl.* p. 436. *Fl. Suecic. n.* 283.

FRITILLARIA caule paucifloro foliis caulinis gramineis alternis. *Haller. hist. n.* 1235.

FRITILLARIA *Meleagris. Scopoli Fl. Carn. n.* 405.

FRITILLARIA præcox purpurea variegata. *Baub. pin.* 64.

FRITILLARIA vulgaris. *Parkinson. Parad.* 40.

FRITILLARIA variegata. *Gerard. emac.* 149. *Raii. hist. p.* 1106. *Hudson. Fl. Angl. ed. 2. p.* 144.

RADIX: Bulbus magnitudine nucis avellanæ, solidus, albus, subrotundus, in plures separabilis, bulbo precedentis anni, marcido, rugoso in thecâ quasi inclusus.	ROOT: a bulb about the size of a hazel nut, solid, white, roundish, divisible into several, inclosed by the withered, wrinkly bulb of the preceding year as in a case.
CAULIS spithamæus et altior, erectus, teres, simplex, lævis, glaucus, haud infrequenter purpurascens.	STALK from half a foot to a foot in height, upright, round, simple, glaucous, and not unfrequently purplish.
FOLIA caulina quatuor, aut quinque, alterna, semi-amplexicaulia, sublinearia, inferne rotundata, superne concava, subtortuosa, glauca.	LEAVES of the stalk about four or five in number, alternate, half embracing the stalk, somewhat linear, round on the under and hollow on the upper side, somewhat twisted and glaucous.
FLOS in summitate caulis unicus, magnus, pendulus, primum ovato-pyramidalis, tum campanulatus.	FLOWER: a single blossom on the top of the stalk, large, pendulous, first somewhat pyramidal, and afterwards bell-shaped.
CALYX nullus.	CALYX wanting.
COROLLA: Petala sex, ovato-oblonga, æqualia, albo et purpureo pulchre tessellata, basi gibbosa. <i>fig. 1.</i>	COROLLA: six PETALS, of an oblong ovate shape, equal, beautifully checquer'd with purple and white, and gibbous at the base. <i>fig. 1.</i>
NECTARIUM: fovea sublinearis, virescens, prope basin cujusvis petali unde gibbi externi. <i>fig. 1.</i>	NECTARY: a narrow cavity of a greenish colour, near the base of each petal, whence the external protuberances. <i>fig. 1.</i>
STAMINA: FILAMENTA sex, subulata, lævia, albida, germine duplo longiora; ANTHERÆ oblongæ, subcompressæ, quadrifidatæ, mucrone virescente instructæ, demisso polline duplo breviores; POLLEN flavum. <i>fig. 2. 3.</i>	STAMINA: six FILAMENTS, tapering, smooth, whitish, twice the length of the germen; ANTHERÆ oblong, flattish, with four grooves, and a greenish point at the top of each, becoming shorter by one half on the shedding of the POLLEN, which is of a yellow colour. <i>fig. 2. 3.</i>
PISTILLUM: GERMEN trigonum, viride; STYLUS teres, pubescens, superne paululum incrassatus, trifidus, laciniis teretibus, divergentibus, interne et externe ad lentem canaliculatis; STIGMATA simplicia, villosa. <i>fig. 4. 5.</i>	PISTILLUM: GERMEN scarce manifestly three corner'd, of a green colour; STYLE round, downy, a little thicken'd above, divided into three segments, which are round, diverging, and mark'd both internally and externally with a groove, visible with a magnifier; STIGMATA simple, villous. <i>fig. 4. 5.</i>

THE *Fritillaria Meleagris* is one of those plants which have been discovered to be indigenous to this country, since the time of Mr. RAY; Mr. BLACKSTONE is I believe the first who mentions it as growing in *Marvde Fields* near *Rissip* Common *Middlesex*, plentifully, and in which place it had been observed in his time for near sixty years; Mr. HUDSON describes it as growing in the Meadows betwixt *Mortlake* and *Kew*, also near *Endfield*; Mr. CULLUM a very accurate and ingenious Botanist at *Eury St. Edmunds*, has sent me plants which he found plentifully in a wild state near that place, and this spring I received information that it was found wild in a wood belonging to Mrs. WILSON, of *Bromley* in *Kent*.

With these several authorities we may, I think with propriety, conclude that it is a real native of this Island; it is found in similar situations abroad, in *sylvis et palustribus*, vid. JACQUIN *Fl. Austr. V. 5. Ap. p.* 45.

The blossoms before they are fully expanded, bear some resemblance to a snake's head, whence they are called by the country people in some places *Snake's Heads*, also checquer'd *Doffedil* and *Tulip*.

If the season be mild they flower in the beginning of April, and are out of bloom in a short time.

It is only regarded as an ornamental plant, and as such has long been cultivated in gardens, in which many beautiful varieties are to be met with.



Rumex acutus.

RUMEX ACUTUS. SHARPP-POINTED DOCK.

RUMEX *Lin. Gen.* HEXANDRIA TRIGYNIA.

Cal. 3 phyllus. *Pétala* 3 conniventia. Semen triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX *acutus* floribus hermaphroditis; valvulis dentatis graniferis, foliis cordato oblongis acuminatis. *Lin. Syst. Veg.* p. 285. *Sp. Pl.* p. 478. *Fl. Suecic.* n. 316.

LAPATHUM petiolo latefcente, foliis lanceolatis, calyce ferrato. *Haller. hist.* n. 1591.

LAPATHUM acutum. *Scopoli* p. 292.

LAPATHUM folio acuto plano. *B. pin.* 115.

LAPATHUM acutum. *Ger. emac.* 388.

LAPATHUM acutum seu Oxylapathum. *J. Baub.* II. 983.

LAPATHUM acutum majus. *Park.* 1224. *Raii Syn.* p. 142. Sharp-pointed Dock.

Hudson. Fl. Angl. ed. 2. p. 155. *Lighfoot Fl. Scot.* p. 188.

RADIX perennis, crassitie digiti minimi aut major, in terram profunde penetrans nec facile extrahenda, simplex in junioribus, in adultis ramosa, foris e flavo fusca, cortice interne flavescente, medulla albidâ.

CAULIS bipedalis, ad tripedalem, crassitie pennæ anserinæ, teres, striatus, rubens, ramosus, superne flexuosus, rigidus, geniculis stipulis obsoletis tectis.

RAMI cauli similes, patentes, longiusculi, inferne foliosi.

FOLIA inferiora oblongo-ovata, acuta, basi subcordata, plana, longitudine uncias quinque, latitudine duas, margine crenulato-crispa, subtus fibris plurimis minute reticulata, caulina sæpius undulata, attamen multo minus quam in rumice crispo.

FLORES parvi, numerosi, circa ramulos semiverticillatim dispositi, idque alterne, penduli.

PEDUNCULI filiformes, ad basin geniculati.

CALYX: PERIANTHIUM triphyllum, foliolis minimis, subsetaceis, concavis, rigidulis, persistentibus.

COROLLA *Stamina* et *Pistillum*, cum nullam notam præbeant huic speciei peculiarem, ad valvulas semen maturam continentes præterimus, ob quibus certe et facile distinguitur.

VALVULÆ minimæ si ad valvulas aliorum Rumicum nostratum comparantur, calyce duplo longiores, oblongæ, obtusiusculæ, integerrimæ, unicâ idque exteriore semper granifera, reliquis plerumque nudis, ex apice granulæ per medium valvulæ decurrit linea prominula et utrinque venæ aliquot ope lentis solummodo distingui possint; *Granulæ* primum oblongæ, demum rotundæ, prominulæ, in umbrosis pallidæ, in apricis ruberrimæ.

SEMEN unicum, triquetrum, flavescens.

Fig. 1 Calyx. 2 Corolla. 3 Stamina. 4 Pistillum. 5 Valvulæ cum granulis immaturis. 6 Semen.

ROOT perennial, the thickness of the little finger, or larger, penetrating deeply into the earth, and not easily drawn out, in the young ones simple, in the full-grown ones branched, externally of a yellowish brown colour, the inside of the bark yellowish, the pith whitish.

STALK from two to three feet high, the thickness of a goose quill, round, striated, reddish, branched, on the upper part crooked, rigid, the joints covered with obsolete stipulæ.

BRANCHES like the stalk, spreading, longish, on the lower part leafy

LEAVES at the bottom of the stalk of an oblong, oval shape, pointed, at the base somewhat heart-shaped, flat, about five inches in length and two in breadth, the edge notched, and somewhat curled, underneath finely reticulated with numerous fibres, those on the stalk usually waved, but much less so than in the curled dock.

FLOWERS small, numerous, disposed about the branches in half whirls, and that alternately, hanging down.

FLOWER-STALKS filiform, with a joint at the base. **CALYX**: a PERIANTHIUM composed of three leaves, which are very small, narrow, pointed, hollow, somewhat rigid and permanent.

COROLLA *Stamina* and *Pistillum* having nothing in them very peculiar, we pass on to the valves containing the ripe seed, which afford the principal marks characterizing this species.

VALVES very small if compared with the valves of our other Docks, twice the length of the calyx, oblong, bluntish, entire at the edge, one and that the outer one always bearing a granule, the others generally naked, from the top of the granule through the middle of the valve runs a prominent line, on each side of which, by the help of a glass only, may be discerned a few veins; *Granules* at first oblong, finally becoming round and prominent, in the shade pallid, in exposed situations very red.

SEED single, three-cornered, and yellowish.

Fig. 1 The Calyx. 2 the Corolla. 3 the Stamina. 4 the Pistillum. 5 the Valves with the granules unripe. 6 the Seed.

The *Rumex acutus*, like the *Rumex maritimus*, is a plant by no means well understood, either by Botanists or Simplers, both of which in their turn mistake it for some other species; this I should not assert, had I not seen frequent instances of such mistakes: fortunately it has a character which need only to be pointed out to make this species as obvious as any plant in nature, and this is the smallness of its seed-valves, which are uniformly at least thrice as small as those of any of our other Docks; the species to which the *Rumex acutus* at first sight has the greatest resemblance, are the *crispus*, the *pulcher*, and the *maritimus*, the first of these is characterized by having its leaves very much curled, its seed valves almost round, entire and very large, so that they nearly hide the branches, in this the leaves are much less curled, the seed-valves, although entire at the edge, are altogether as small as in the *crispus* they are large, and instead of being roundish are of an oblong shape, the whole plant is more fine and delicate and the branches more spreading; from the *pulcher* and *maritimus* it is at once distinguished, by having the edges of its valves entire, which in those are toothed.

The Sharp-pointed Dock is not confined to any particular place of growth, it is found not only in woods, hedges, and hedges, but also by the sides of rivers and roads; in fields and meadows it is less frequent; Camberwell Grove is at present a good Habitat for it; it flowers in June and July. The *Rumex sanguineus* differs in no respect from the present plant, but in the colour of its veins, on this account I consider it merely as its variety.

It is the more necessary that the Dock here figured should be thus pointed out, as it is an officinal plant, and considered as useful in the cure of scorbutic and cutaneous disorders, both exhibited internally, and applied externally in ointments, cataplasms, and fomentations.

RUMEX OBTUSIFOLIUS. BROAD LEAVED DOCK.

RUMEX *Linnaei* Gen. Pl. HEXANDRIA TRIGYNIA.

Cal. 3 phyllus. Petala 3 conniventia. Sem. 1 triquetrum.

Raii Syn. Gen. 5. HERRÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX *obtusifolius* floribus hermaphroditis, valvulis dentatis graniferis, foliis cordato-oblongis obtusis pubescentibus. *Lin. Syst. Vegetab.* p. 285. *Sp. Pl.* 478. *Fl. Suecic.* n. 315.

LAPATHUM foliis ovatis, circa petiolum emarginatis, floribus dense paniculatis, dentatis, verrucosis. *Haller. hist. Helv.* n. 1592.

LAPATHUM vulgare folio obtuso. *J. B.* II. 984.

LAPATHUM sylvestre, folio subrotundo. *Bauh.* p. 115.

LAPATHUM sylvestre, folio minus acuto. *Ger. emac.* 388.

LAPATHUM sylvestre vulgatus. *Park.* 1225.

Raii Syn. p. 141. The most common broad leaved wild Dock.

Hudson. Fl. Angl. ed. 2. p. 155. *Lightfoot Fl. Scot.* p. 189.

RADIX perennis, in terram alte et recte descendens, fusiformis, crassitie digiti intermedii, foris for-
dide fusca, intus flavescens, in junioribus sim-
plex, in annosis multiplex, ramosus.

CAULIS tripedalis, erectus, ad basin usque ramosus,
teres, lævis, superne scabriusculus, fulcatus,
solidus, geniculatus, geniculis stipulis obso-
letis, marcescentibus vestitis.

FOLIA radicalia, cordato ovata, petiolata, obtusiuscula,
subtus venosa, nervo medio sæpius ruberrimo,
caulina acuta, subundulata.

PETIOLI subtus rotundati, superne plano-concavi.

RACEMI florum axillares, suberecti, nudiusculi.

CALYX: PERIANTHIUM triphyllum, foliolis lanceo-
lato-linearibus, concavis, margine membra-
naceis, corollâ brevioribus.

COROLLA: PETALA tria, ovata, obtusiuscula, pa-
tentia, margine membranacea.

STAMINA: FILAMENTA sex, brevissima, alba; AN-
THERÆ sublineares, flavæ, apice bifidæ.

PISTILLUM: GERMEN trigonum; STYLI tres, ca-
pillares, reflexi, inter rimas petalorum con-
niventium exserti; STIGMATA lacinata.

PERICARPIUM nullum: Corolla trivalvis, connivens,
includens semen; valvulis ovato-acutis, ve-
nosis, margine denticulatis, unica granifera.
fig. 1. 2. 3.

SEMEN unicum, triquetrum, fuscum.

ROOT perennial, running deeply and straightly into
the earth, tapering, the thickness of the
middle finger, on the outside of a dirty
brown colour, internally yellowish, in the
young ones simple, in the old ones divided
into many branches.

STALK three feet high, upright, branched down to
the bottom, round, smooth, upwards slightly
rough, grooved, solid and jointed, joints covered
with obsolete, withered stipulæ.

LEAVES next the root of an heart shaped oval form,
standing on footstalks, bluntish, veiny under-
neath, the middle generally very red, those
on the stalk pointed and somewhat waved.

LEAF-STALKS round underneath, above plano-con-
cave.

FLOWER-BRANCHES, proceeding from the axæ of
the leaves, nearly upright, and furnished
with but few leaves.

CALYX: a PERIANTHIUM of three leaves, which are
of a shape betwixt lanceolate and linear, hol-
low, membranous at the edges, and shorter
than the corolla.

COROLLA: three oval PETALS, bluntish, spreading,
membranous at the edges.

STAMINA: six Filaments, very short and white;
ANTHERÆ somewhat linear, yellow and
forked at top.

PISTILLUM: GERMEN three cornered, STYLES
three, very fine, turning back, and project-
ing from betwixt the closed petals.

SEED-VESSEL none: the Corolla, which is com-
posed of three valves, closes and contains
the seed; the valves are oval, pointed,
and veiny, toothed on the edge, one of them
bearing a granule. *fig. 1. 2. 3.*

SEED single, three cornered and brown. *fig. 4.*

OF all our English Docks, this perhaps may be said to be the most common, and considered as a weed the most pernicious, being the largest and most spreading, except the Water Dock, and refused by cattle in general; hence the Husbandman who wishes to see his grounds neat and clean has a rooted enmity to it, and for its destruction an instrument, called a Docking Iron, has been invented by some one more ingenious than the rest, which is frequently made use of; the purpose of this instrument is to draw the plant up by the root, from an idea, that if it was cut down ever so close, while any part of the root remained, it would grow again; but this idea has perhaps been too hastily assumed, frequent mowing most certainly destroys it, and frequent spudding it is presumed would have the same effect, but unless it be done carefully, and at stated periods, little good is to be expected.

In all sorts of cultivated ground, in Farm Yards, Courts, by the sides of Ditches, and elsewhere, we find this species most abundantly, it flowers at the latter end of June, and ripens its seed in July and August.

Our present plant is subject to as little variety as any of the Docks, its broad bottom leaves readily distinguish it, and these, though they may differ somewhat in size according as the soil is more or less luxuriant, vary but little in their shape, in general the younger the plant the more obtuse are its radical leaves.





Rumex maritimus

RUMEX MARITIMUS. SMALL WATER DOCK.

RUMEX *Lin. Gen. Pl. HEXANDRIA TRIGYNIA.*

Cal. 3. phyllus. Petala 3. conniventia. Sem. 1. triquetrum.

Raii Syn. Gen. 5. HERBÆ FLORE IMPERFECTO SEU STAMINEO VEL APETALO POTIUS.

RUMEX *maritimus* floribus hermaphroditis: valvulis dentatis graniferis, foliis linearibus. *Lin. Syst. Vegetab. p. 285. Sp. Pl. 478. Fl. Suecic. n. 313.*

LAPATHUM petiolis latefcentibus, foliis longè lanceolatis, floribus verticillatis verrucosis. *Haller hist. n. 1590.*

LAPATHUM aquaticum, angustissime acuminato folio. *Bocc. mus. 2. p. 142. t. 115.*

LAPATHUM aureum glomerulis densis. *Pet. Herb. T. 2. fig. 8.*

ANTHOXANTHON. *J. B. II 988. angustifolium polyspermon. Merret pin.*

LAPATHUM aureum *Pet. herb. t. 2. f. 7. longo angustoque folio, Anthoxantho plurimo accedens, verticillis rarioribus caulem cingentibus, femine majori. Raii Syn. p. 142. Golden Dock. Hudson. Fl. Angl. ed. 2. p. 155. Lightfoot Fl. Scot. p. 118.*

RADIX perennis, fusiformis, foris ex rubro fusca, intus ruberrima, sapore adstringente, et ingrato.

CAULIS bi aut tripedalis, ramosus, rubicundus, fuscatus, scabriusculus.

FOLIA *radicalia* longe petiolata, dodrantalia aut pedalia, oblongo lanceolata, basi paululum angustata, e viridi caerulefcentia, planiuscula, margine undulato-crenata, *superiora* lineari-lanceolata, superne fere avenia, plerumque fursum curvata.

FLORES sæpius flavescentes, circa caulem in densis et numerosis glomerulis verticillatim dispositi.

CALYX: PERIANTHIUM triphyllum, foliolis lanceolatis, erectis, concavis, paululum incurvis.

COROLLA: PETALA tria, ovato-lanceolata, viridia, margine prope basin duobus aut tribus dentibus fetaceis instructa, granifera, granulis, adultis super valvulis, oblongis, tumidis, majusculis. *fig. 1. 2.*

STAMINA: FILAMENTA sex, capillaria, brevissima; ANTHERÆ oblongæ, erectæ, didymæ, flavæ.

PISTILLUM: GERMEN trigonum; STYLI tres, capillares, inter rimas petalorum conniventium exserti; STIGMATA laciniata.

PERICARPIUM nullum.

SEMEN unicum, triquetrum, nitidum, corollâ inclusum. *fig. 3.*

ROOT perennial and tapering, externally of a reddish brown, internally of a bright red colour, its taste astringent and unpleasant.

STALK from two to three feet high, branched, of a reddish colour, grooved, and slightly rough.

LEAVES *next the root* standing on long footstalks, oblong and lanceolate, a little narrowed at the base, of a blueish green colour, flattish, but slightly waved and notched on the edge, the *top leaves* of a shape betwixt linear and lanceolate, having on the upper side scarce any appearance of veins, and usually bent upwards.

FLOWERS mostly of a yellowish colour, placed around the stalk in numerous thick whirls.

CALYX: a PERIANTHIUM of three leaves, which are lanceolate, upright, hollow, and bent a little inwards.

COROLLA: three PETALS; oval and pointed, of a green colour, the edge near the bottom furnished with two or three fine, long teeth, the valves when full grown producing grains which are oblong, tumid and rather large. *fig. 1. 2.*

STAMINA: six Filaments very fine and very short; ANTHERÆ oblong, upright, double and yellow.

PISTILLUM: GERMEN three corner'd; STYLES three, very slender, projecting from betwixt the junctures of the closed petals, STIGMATA jagged.

SEED-VESSEL none.

SEED single, three corner'd, shining, contain'd within the closed corolla. *fig. 3.*

OF all the different species of Docks which this country produces, this seems to have been the least understood; yet are its characteristic marks not less striking, nor its varieties more remarkable than any of the other species.

That our plant is the *Rumex maritimus* of *Linnaeus* no one can doubt that reads his description in the *Flora Suecica*; the character of the *radix rubra* so peculiar to it which is given in the *Systema Vegetabilium*, is an additional confirmation of it.

The three species of *Lapathum* viz. n. 4. 5. 10 added to those of RAY by DILLENIVS in the third edition of the Synopsis and mark'd with an asterisk are doubtless to be referred to this plant and considered only as some of its varieties.

The name of *maritimus* seems but ill applied, as it is by no means confined in its growth to the Sea shore, the term *palustris* which Mr. HUDSON has given to a species which I profess my self totally ignorant of would perhaps be more suitable for it.

The plant here figured grows in the greatest plenty in the neighbourhood of my Garden St. Georges Fields, so that I have had frequent opportunities of observing it in all its states, its most striking character when in flower or seed is the number and narrowness of the leaves on its branches; when view'd more closely, we are struck with the number and length of the teeth on the edges of the seed valves, which valves are frequently though not always of a yellowish colour and furnished with remarkably large and long grains, if any doubt remains respecting the species, the root on being cut across exhibits a beautiful red colour equal to any carmine, and which is a character that I have hitherto always found to this species.

The natural situation of the *Rumex maritimus* is a moist one; thus we find it on the edges of wet ditches, and rivulets, tho' not unfrequently in pastures or drier ground, on the former particularly if the situation be sheltered and the soil luxuriant it will grow to the height of three or four feet, having radical leaves a foot long and three inches broad which when young assume a somewhat glaucous appearance, in the latter it seldom grows more than a foot high and then its radical leaves are about six inches long and one inch or somewhat more broad, (outlines of both these leaves are represented on the plate) but in neither of these situations does it lose its character above specified.

It is not only in the neighbourhood of St. Georges Fields that I have noticed this species but in similar situations in many places around London, and I doubt not but it is a very common plant in many parts of England.

It flowers in July, August and September; I remember once to have seen the leaves having red veins like those of the *Rumex sanguineus*.

It is one of those Docks which are the least noxious to the Farmer; the roots I have been informed are frequently dug up and sold for those of the sharp pointed Dock.

EPILOBIUM MONTANUM. WOOD WILLOW-HERB.

EPILOBIUM *Linnaei Gen. Pl.* OCTANDRIA MONOGYNIA

Calyx quadrifidus. *Petala* quatuor. *Capfula* oblonga, infera. *Semina* papposa.

Raii Synopf. Gen. 22. HERBÆ VASCULIFERÆ FLORE TETRAPETALO ANOMALÆ.

EPILOBIUM foliis oppositis, ovatis, dentatis, *Linnaei Syst. Vegetab.* p. 296. *Fl. Suecic.* n. 329.

EPILOBIUM foliis ovato-lanceolatis, glabris, dentatis, *Haller Hist.* n. 996.

CHAMAENERION montanum *Scopoli Fl. Carn.* p. 270.

LYSIMACHIA filiquosa glabra major. *Baubin* p. 245.

LYSIMACHIA filiquosa major *Parkinson.* 548.

LYSIMACHIA campestris. *Gerard emac* 478. *Raii. Hist.* p. 861. The greater smooth-leaved codded Willow-herb or loose strife. *Syn.*

Hudson. Fl. Angl. ed. 2. p. 4.

Lightfoot Fl. Scot. p. 198.

RADIX perennis, sublignosa, fibrosa, gemmulis ruberrimis superne instructa.

CAULIS pedalis ad tripedalem, erectus, rubicundus, teres, subpubescens, superne ramosus, sæpe vero simplex.

RAMI oppositi.

FOLIA opposita, pedicellis brevissimis basi connatis infidentia, ovato acuta, argute dentata, superne glabra, inferne pallidiora, venosa, hirsutula, imis sæpe ruberrimis.

CALYX: PERIANTHIUM superum, tetraphyllum, foliolis lanceolatis, nervo medio conspicuo, *fig.* 1.

COROLLA: PETALA quatuor, obcordata, profunde emarginata, pallide purpurea, calyce longiora, patentia. *fig.* 2.

STAMINA: FILAMENTA octo, subulata, alba, quorum quatuor alterna breviora, ANTHERÆ flavescentes. *fig.* 3.

PISTILLUM: GERMEN tetragonum, inferum, prælongum, fulcatum; STYLUS albus, longitudine staminum, apice paululum incrassatus; STIGMA quadrifidum, album, laciniis patentibus, non vero revolutis. *fig.* 4. 5.

SEMINA minima, papposa. *fig.* 6.

ROOT perennial, somewhat woody and fibrous, on its upper part furnished with little buds of a bright red colour.

STALKS from one to three feet high, upright, of a red colour, round, scarce perceptibly downy, branched above, but often single.

BRANCHES opposite.

LEAVES opposite, sitting on very short footstalks, whose bases unite, ovate and pointed, sharply toothed on the edges, on the upper side smooth, on the under side of a paler colour, veiny and very slightly hairy, the bottom ones often of a bright red colour.

CALYX: a PERIANTHIUM placed above the germen, composed of four narrow pointed leaves, in which the midrib is conspicuous. *fig.* 1.

COROLLA four PETALS inversely heart-shaped, deeply notched, of a pale purple colour, longer than the calyx and spreading. *fig.* 2.

STAMINA eight FILAMENTS, tapering, of a white colour, four of which are alternately shorter; ANTHERÆ yellowish. *fig.* 3.

PISTILLUM: GERMEN four cornered, placed beneath the calyx, very long and grooved; STYLE white, the length of the stamina, thickened a little at top; STIGMA divided into four segments, white, the segments spreading but not rolled back. *fig.* 4. 5.

SEEDS very small and downy. *fig.* 6.

MOST of the Willow-herbs that we have already figured, have grown in wet situations, this rather delights in Woods, Hedge-rows, shady Lanes, and Hedges, sometimes it is also found on Walls in Courts and Areas; it flowers from June to August.

We sometimes find it having three or four leaves at each joint, a variety to which most of this family is subject.



Epilobium montanum.

SEDUM TELEPHIUM ORPINE.

SEDUM *Lin. Gen. Pl.* DECANDRIA PENTAGYNIA.

Cal. 5-fidus. *Cor.* 5-petala. *Squamæ* nectariferæ 5 ad basin germinis. *Caps.* 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEDUM foliis planiusculis ferratis, corymbo folioso caule erecto. *Lin. Syst. Vegetab.* p. 358. *Sp. Pl.* 616. *Fl. Suecic.* n. 400.

SEDUM androgynum foliis confertis, ferratis, floribus dense umbellatis. *Haller. Hist.* 954.

SEDUM *Telephium*. *Scopoli Fl. Carniol.* p. 323.

TELEPHIUM vulgare. *Baubin. Pin.* 287.

ANACAMPSEROS, vulgo Faba crassa. *J. B. III.* 681.

TELEPHIUM seu crassula major vulgaris. *Park.* 726.

CRASSULA seu Faba inversa *Ger.* 416. *Raii Syn.* p. 269. Orpine or Live long.

Hudson. Fl. Angl. ed. 2. p. 195.

RADIX perennis, tuberosa.

CAULES plurimi simul enascuntur, pedales, bipedales, et ultra, erecti, simplices, teretes, solidi, rubicundi, et sæpe rubro punctati.

FOLIA sparsa, conferta, erecta, sessilia, ovata, dentata idque varie, glabra, carnea, glauca.

FLORES in fummis caulibus et ramulis (in quos fummi caules dividuntur) in umbellas densas digesti, saturate purpurei, nobiscum rarissime albi.

CALYX: PERIANTHIUM minimum, carnosum, quinquefidum, laciniis acutis. *fig. 1.*

COROLLA: PETALA quinque, lanceolata, acuminata, plana, superne purpurea, subtus alba. *fig. 2.*

STAMINA: FILAMENTA decem, subulata, longitudine corollæ, ANTHERÆ subrotundæ, purpurascens. *fig. 3.*

PISTILLUM: GERMINA quinque, oblonga, definitia in stylos tenuiores, coloratos; STIGMATA minima. *fig. 4.*

PERICARPIUM: CAPSULÆ quinque, acuminatæ, erectæ. *fig. 5.*

SEMINA plurima, minima.

ROOT perennial and tuberous.

STALKS many, growing up together, from one to two feet high, and upwards, upright, unbranched, round, solid, reddish, and often dotted with red.

LEAVES placed on the stalk so as nearly to cover it, in no regular order, upright, sessile, ovate, indented and that variously, smooth, fleshy, and of a blueish green colour.

FLOWERS placed on the tops of the stalks and branches (into which the tops of the stalks divide) in close umbells, of a deep purple colour, very rarely white with us.

CALYX: a PERIANTHIUM, very minute, and fleshy, the segments pointed. *fig. 1.*

COROLLA: five lanceolate petals, running out to a long point, flat, purple above, and whitish underneath. *fig. 2.*

STAMINA: ten FILAMENTS tapering, the length of the corolla; ANTHERÆ roundish, and somewhat purple. *fig. 3.*

PISTILLUM: five GERMINA, of an oblong shape, terminating in five, slender, coloured styles; STIGMATA, very minute. *fig. 4.*

SEED-VESSEL: five, acuminated, upright CAPSULES. *fig. 5.*

SEEDS numerous and very small

Of our English *Stonecrops*, this is the only one that has flat leaves, and consequently is distinguished with the utmost facility; it partakes however of the fleshy nature of the others.

It is a beautiful plant both in its foliage and flowers, and being easily cultivated, is met with in most gardens, where it will often grow a yard high.

It is said to vary in its leaves and blossoms, the former being sometimes found entire at the edge, and the latter of a white colour.

I have found it wild in many places about London, but most plentifully in the vicinity of *Charlton* and *Shooter's Hill*; it grows among the herbage on the confines of woods and flowers in July and August.

LINNÆUS informs us that the Caterpillar of the *Phalæna alpicola* feeds on its leaves.





Sedum dasyphyllum

Sansom Sculp

SEDUM DASYPHYLLUM. THICK-LEAVED STONECROP.

SEDUM *Linnaei*. Gen. Pl. DECANDRIA PENTAGYNIA.

Cal. 5-fidus. *Cor.* 5-petala. *Squamæ* nectariferæ 5 ad basin germinis. *Caps.* 5.

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEDUM *dasyphyllum* foliis oppositis ovatis obtusis carnosis, caule infirmo, floribus sparsis. *Linn. Syst. Vegetab.* p. 358. *Spec. Plant.* 618.

SEDUM foliis conicis, obtusis, glaucis, reticulatis; caule ramofo viscido. *Haller. Hist.* n. 961.

SEDUM *dasyphyllum*. *Scopoli. Fl. Carn.* n. 555.

SEDUM minus circinato folio. *Baubin. Pin.* 283.

SEDUM foliis cordato-ovatis compressis sæpius oppositis, floribus sparsis. *Sauv. Monsp.* 8.

SEDUM foliis semiglobosis subovatis sessilibus quadrifariam imbricatis. *Wachend. ultr.* 391.

AIZOON *dasyphyllum*. *Dalech. Hist.* 1133.

Raii Syn. ed. 3. p. 271.

Hudson. Fl. Angl. 172. ed. 2. p. 197.

PLANTA perennis.

CAULES plurimi, triunciales et ultra, teretes, debiles, viscosi, simplices, erecti, basi repentes.

FOLIA pro ratione plantæ magna, plerumque opposita, cordato-ovata, adnata, carnosæ, glauca, interne planiuscula, externe convexa, punctata, sæpe rubore quasi reticulata, circa medium caulis majora, inferiora interne excavata.

PEDUNCULI ramofo, viscosi, priusquam flores aperiantur nutantes.

FLORES intus albi, externe rubentes.

CALYX: PERIANTHIUM sexpartitum, parvum, laciniis ovatis, carnosis, viscidis, *fig.* 1, parum auct.

COROLLA: PETALA sex, ovato-acuta, plana, patentia, calyce triplo longiora, carinata, *fig.* 2, magn. nat.

NECTARIA sex, singulum glandula minima flava singulo germiniad basin extrorsum posita, *fig.* 5.

STAMINA: FILAMENTA plerumque duodecim, subulata, longitudine corollæ: ANTHERÆ primum subrotundæ, rubræ, demum compressæ: POLLEN flavum, *fig.* 3.

PISTILLUM: GERMINA sex, oblonga, definentia in STYLOS tenuiores: STIGMATA simplicia, recurvata, *fig.* 4.

PERICARPIUM: CAPSULÆ sex, pallide fuscæ, introrsum dehiscentes.

SEMINA minima, flavescentia.

The PLANT is perennial.

STALKS numerous, about three inches high, round, weak, clammy, simple, upright, and creeping at bottom.

LEAVES, in proportion to the plant, large, generally opposite, of an heart-shaped oval figure, growing to the stalk, fleshy, of a blueish green colour, flattish on the inside, and convex on the outside, dotted, frequently veined with red, largest about the middle of the stalk, the lowermost hollow on the inside.

FLOWER-STALKS branched, clammy, before the flowers open hanging down.

FLOWERS white on the inside, externally reddish.

CALYX: a PERIANTHIUM divided into six segments, small, the segments oval, fleshy, and viscid, *fig.* 1, a little magnified.

COROLLA: six PETALS, oval and pointed, flat, spreading, three times the length of the calyx, midrib projecting, *fig.* 2, natural size.

NECTARIES six, each a small yellow gland, placed externally at the bottom of each germen, *fig.* 5.

STAMINA: FILAMENTS most commonly twelve, tapering, the length of the corolla: ANTHERÆ, first roundish, and of a red colour, lastly flattened: the POLLEN yellow, *fig.* 3.

PISTILLUM: six GERMINA, oblong, terminating in slender STYLES: STIGMATA simple, and bending down, *fig.* 4.

SEED-VESSEL: six CAPSULES of a pale brown colour, opening internally.

SEEDS very minute, and yellowish.

SUCH persons as are fond of decorating the rock work of their gardens with plants, cannot select one better adapted to the purpose than the present species of *Stonecrop*. It grows without any trouble, in any aspect, multiplies very much by young shoots, and looks beautiful throughout the year. Indeed it is strange that it has not yet made its way more universally into gardens.

I have frequently noticed it on the walls about town. It grows particularly in great abundance on a wall near *Chelsea Hospital*, on the left-hand side of the horse-road, on turning the corner out of *Paradise-Row*; likewise on a wall on the left-hand side of the lane leading from *Kensington gravel-pits* to *Acton*; and elsewhere.

Its thick white leaves readily distinguish it from every other species of *Stonecrop*.

Botanists have differed widely in the descriptions of these, as will appear from a perusal of the Synonyms.

It flowers in June; and has generally one additional part more throughout the whole of the fructification than the *Sedum acre*, and other *Stonecrops*.



AGROSTEMA GITHAGO. COCKLE.

AGROSTEMA *Lin Gen. Pl.* DECANDRIA PENTAGYNIA.

Cal. 1-phyllus, coriaceus. *Petala* 5 unguiculata: *Limbo* obtuso, indiviso.
Caps. 1-locularis.

Raii Syn. Gen. 24 HERBÆ PENTAPETALÆ VASCULIFERÆ.

AGROSTEMA *Githago* hirsuta, calycibus corollam æquantibus, petalis integris nudis. *Lin. Syst. Veg.* p. 361. *Sp. Pl.* 624. *Fl. Suecic.* n. 407.

LYCHNIS calycibus longissime caudatis. *Haller. Hist.* 926.

LYCHNIS *Githago*. *Scopoli Fl. Carn.* n. 527.

LYCHNIS fegetum major. *Bauh.* p. 204.

PSEUDO-MELANTHIUM *Ger-emas.* 1087.

LYCHNOIDES fegetum five *Nigellastrum*. *Park.* 632. *Raii Syn.* 338. Cockle.

Hudson Fl. Angl. ed. 2. p. 198.

Lightfoot Fl. Scot. p. 238.

Oeder. Fl. Dan. t. 576.

RADIX annua.

CAULIS erectus, bipedalis, teres, fistulosus, hirsutus, superne ramosus.

FOLIA oblongo-lanceolata, carinata, basi connata, utrinque hirsuta, pilis ad basin folii longioribus.

FLORES solitarii, speciosi, purpurei.

CALYX: PERIANTHIUM monophyllum, quinquefidum, profunde sulcatum, angulosum, pilosum, laciniis lanceolatis, subnudis, carinatis, corollâ longioribus.

COROLLA: PETALA quinque, magna, speciosa, purpurea, obcordata, basi albida, venis paucis saturate viridibus interrupte notatis; Unguis sublinearis, longitudine fere limbi. *fig. 1.*

STAMINA: FILAMENTA decem, subulata, quinque ad, basin petalorum inserta, quinque seniora intra petala locata: ANTHERÆ pallide purpureæ, subfagittatæ. *fig. 2. 3.*

PISTILLUM: GERMEN subrotundo-conicum, viride, glabrum: STYLI quinque, filiformes, albidii, pilosi, erecti, apicibus paululum reflexis; STIGMATA simplicia. *fig. 4. 5.*

PERICARPIUM: CAPSULA magnitudine fere glandis, calyce exsiccatō tectum, ore quinqueidentato, lineis decem elevatis notatum. *fig. 6.*

SEMINA plurima, majuscula, angulata, eleganter exasperata. *fig. 7.*

ROOT annual.

STALK upright, about two feet high, round, hollow, hirsute, branched at top.

LEAVES of an oblong lanceolate shape, keel'd, uniting at the base, hairy on both sides, the hairs at the base of the leaves longest.

FLOWERS standing singly on the tops of the stalks, showy and purple.

CALYX: a PERIANTHIUM of one leaf, divided into five segments, of a hard substance, deeply grooved, angular and hairy, the segments lanceolate, slightly hairy, with a prominent midrib, and longer than the corolla.

COROLLA: five PETALS, large, showy, of a purple colour, and inversely heart-shaped, the base whitish, marked with a few interrupted veins of a deep green colour; Claw somewhat linear, almost the length of the limb. *fig. 1.*

STAMINA: ten FILAMENTS, tapering, five inserted into the base of the petals, and five later ones placed betwixt the petals; ANTHERÆ of a pale purple colour, and somewhat arrow-shaped. *fig. 2. 3.*

PISTILLUM: GERMEN of a roundish conical shape, smooth, and of a green colour; STYLES five, thread-shaped, whitish, hairy, upright, the tips bending a little back; STIGMATA simple. *fig. 4. 5.*

SEED-VESSEL; a CAPSULE almost the size of an acorn, covered with its dried calyx, having ten ribs, the mouth splitting into five teeth. *fig. 6.*

SEEDS numerous, largish, angular, with a surface like shagreen. *fig. 7.*

The Cockle is a very common plant in most Corn-fields about London and elsewhere; it flowers in June and July.

Like the red Poppy it contributes to ornament our fields, but is rarely found in gardens.

A miller informed me he never wished to see any of it among the corn he ground, as it had a very great tendency to clog his mill-stones.

The seeds being large and mealy, probably afford food to several sorts of birds.

Its medical virtues, highly extolled by former writers, are disregarded in the present practice.



Lythrum Salicaria.

LYTHRUM SALICARIA. PURPLE-SPIKED LOOSE-STRIFE.

LYTHRUM *Lin. Gen. Pl.* DODECANDRIA MONOGYNIA.
Cal. 12 fidus. *Petala* 6. calyci inserta. *Caps.* 2. locularis, polysperma.

Raii Syn. Gen. 25. HERBÆ HEXAPETALÆ ET POLYPETALÆ VASCULIFERÆ.

LYTHRUM *Salicaria* foliis oppositis cordato lanceolatis floribus spicatis dodecandris. *Lin. Syst. Vegetab.* p. 371. *Spec. plant.* 640. *Fl. Suec. n.* 422.

SALICARIA foliis lanceolatis, subhirsutis, floribus spicatis. *Haller. hist.* 854.

LYTHRUM *Salicaria*. *Scopoli Fl. Carn.* n. 565. *Lysimachia* spicata purpurea. *Bauh. pin.* 246.

SALICARIA vulgaris purpurea foliis oblongis. *Tourn. Inst. Raii Syn.* p. 367. Purple spiked Willow-herb, or Loose-strife.

LYSIMACHIA purpurea *Ger. emac.* 476. *Parkinson.* 546. *Hudson. Fl. Angl. ed. 2.* p. 206. *Lightfoot, Fl. Scot.* p. 206.

RADIX perennis, crassa, ramosa, sublignosa, in latum extensa.

CAULIS bipedalis ad tripedalem, erectus, inferne glaber, tetragonus, superne pubescens, pentagonus: angulis acutis, membranaceis, scabris, ramosis.

RAMI superiores sparsi; inferiores oppositi, tetragoni, scabri, minutim pubescentes, erecti, breviusculi, frequentes.

FOLIA sessilia, amplexicaulia, lanceolata, acuta, tripollicaria, supra glabra, subtus minutim pubescentia, scabriuscula, venosa, margine scabra, patentia; inferiora opposita, superiora sparsa, ramea opposita.

SPICÆ terminales, cylindricæ, e glomeribus florum compositæ, conglomeribus remotiusculis, circiter octofloris, bractea fulcitis.

BRACTEÆ glomerum solitariae, ovatae, longius acutae, subtus villosae, calycibus longiores, subpurpureae; florum lineari-subulatae, parviusculae.

CALYX: PERIANTHIUM tubulatum, turbinato-cylindricum, striatum, hirsutum: ore truncato, 12 fido: lacinias purpurascens; quarum sex alternæ subulatae, hirsutae, erectae; sex aliæ alternæ parvae, ovato acutiusculae, inflexae, concavae, apice minutim barbatae. *fig.* 1.

COROLLA purpurea: PETALA 6, cuneiformi-oblonga, obtuso rotundata, erecta, calyce longiora, margine calycis intra lacinias calycis longiores inserta, patentia. Petala ante eruptionem calycis tubo intrusa sunt et recondita; hinc postmodum erumpunt et quasi e calyce extrahuntur. *fig.* 2.

STAMINA: Filamenta 12, subulata, albida, calycis parieti intra tubum inserta, quorum sex longiora tubo calycis paulo longiora; 6 breviora intra tubum recondita; *Antherae* inferiores ovatae, luteae, incumbentes, superiores purpureae. *fig.* 3.

PISTILLUM: GERMEN superum, ovatum, acutum, utrinque sulcatum, glabrum, viridescens; STYLUS cylindricus, albus, corollâ vix longior; STIGMA capitatum. *fig.* 4.

PERICARPIUM: CAPSULA oblonga, tecta, bilocularis. *fig.* 5. 6.

SEMINA plurima, minima. *fig.* 7.

ROOT perennial, thick, branched, somewhat woody, widely extended.

STALK from two to three feet high, upright, below smooth, four-cornered; angles sharp, membranous and rough; branched.

BRANCHES: the upper ones placed without any order; the lower ones opposite, four-cornered, rough, and slightly downy, upright, shortish, and numerous.

LEAVES sessile, embracing the stalk, lanceolate, pointed; about three inches long, above smooth, underneath slightly downy, roughish, and veiny, spreading; the lower ones opposite, the upper ones placed without any regular order, those of the branches opposite.

SPIKES terminal, cylindrical, composed of clusters of flowers, which are placed at a little distance from each other, and consist of about eight flowers supported by a floral leaf.

FLORAL-LEAVES of the clusters solitary, oval with a long point, underneath villous, longer than the flower-cups, and purplish, those of the flowers small, nearly linear, and running out to a point.

CALYX: a PERIANTHIUM tubular, cylindrical but widest at top, striated, hirsute, the mouth as if cut off, divided into twelve purplish segments, six of which run out to a long point, are hirsute and upright, the other six which are alternate with the preceding six are small, ovate, pointed, bend inward over the stump, are hollow and minutely bearded at top. *fig.* 1.

COROLLA purple. PETALS 6, of an oblong wedge shape, blunt at the extremity, upright and longer than the calyx, inserted into the edge of the calyx betwixt its longest segments, and spreading, the Petals, before they break out, are as it were thrust into and hid in the tube of the calyx, from whence they afterwards burst forth, and are as it were drawn out of the calyx. *fig.* 2.

STAMINA: 12 Filaments, tapering and whitish, inserted into the inside of the calyx, of which the six longest are somewhat longer than the tube of the calyx, and the six shortest hid within the tube; *ANTHERAE* ovate and incumbent, the lowermost yellow, the uppermost purple. *fig.* 3.

PISTILLUM: GERMEN above the calyx, ovate, pointed, with a groove on each side, smooth, greenish; STYLE cylindrical, white, scarce longer than the Corolla; STIGMA forming a little head.

SEED-VESSEL: an oblong Capsule, covered by the calyx, of two cavities. *fig.* 5. 6.

SEEDS numerous and very small. *fig.* 7.

The beautiful long spikes of purple flowers which this plant plentifully produces during the latter part of the Summer, render it a conspicuous ornament on the banks of rivers, ponds, ditches, &c. where it grows almost universally in this country; brought into the garden it flourishes without any trouble, and is a very proper plant to grace the shrubbery.

Its qualities appear to be of the astringent kind, hence it has been recommended by DE HAEN in long protracted Diarrhæas and Dysenteries. *Vid. rat. med. part. 4.* p. 195.

It generally remains untouched by cattle, I have this year observed its leaves very much eaten by the Caterpillar of a *Trentheda*.

The structure of the blossom is singularly curious, and will amply repay the botanist the trouble of dissecting it. I have noticed a variety with three leaves at a joint, in which the stalk was hexagonal.



Sanson Sculp

Sempervivum tectorum

SEMPERVIVUM TECTORUM. HOUSELEEK.

SEMPERVIVUM *Lin. Gen. Pl.* DODECANDRIA DODECAGYNIA. *Cal.* 12. *partitus Petala* 12. *Capsulæ* 12. *polypermæ.*

Raii Syn. Gen. 17. HERBÆ MULTISILIQUÆ SEU CORNICULATÆ.

SEMPERVIVUM *tectorum* foliis ciliatis propaginibus patentibus. *Linn. Syst. Vegetab. p.* 178. *Sp. Pl.* 664. *Fl. Suec. n.* 428.

SEMPERVIVUM rofulis glabris ciliatis, petalis conglomeratis, lanceolatis, hirsutis, quatuordecenis. *Haller. hist. n.* 949.

SEDUM *tectorum.* *Scopoli Fl. Carn. n.* 529.

SEDUM majus vulgare. *Baubin. pin.* 283. *Parkinson.* 730.

SEMPERVIVUM majus. *Ger. emac.* 510. *Raii Syn. p.* 269. Houseleek.

Hudson. Flor. Angl. ed. 2. Lightfoot. Fl. Scot. p. 251.

RADIX biennis, ramosa, plurimis fibrillis instructa.

FOLIA radicalia in formam Rosæ plenæ disposita, sessilia, cuneiformia, plusquam pollicaria, carnosa, crassa, supra plana, subtus convexiuscula, utrinque glabra, inferne albida, margine ciliata, et sæpius rubore tincta, acuminata, erecta, exteriora majora, interiora sensim minora.

PROPAGINES longius petiolatæ, globosæ, magnitudine ovi columbini vel ultra, strobiliformes, imbricatæ foliis erectis.

PETIOLI propaginum cylindrici, teretes, ferruginei, lanuginosi, longius exserti, nudi, e basi radicis prope folia, exeuntes.

SCAPUS dodrantalis aut pedalis, erectus, teres, lanuginosus, rubicundus, foliosus, apice ramosus, ramis floriferis patentibus, recurvis.

FLORES plurimi, conferti, erecti, secundi, carnei.

CALYX: PERANTHIUM plerumque duodecemfidum, laciniis lanceolatis, hirsutis, ciliatis, viscosis, apice purpureis.

COROLLA: PETALA duodecim et ultra, calyce duplo longiora, lanceolata, carnea.

STAMINA: FILAMENTA numero et figura maxime variantia, plerumque duodecim, subulato-tenua; ANTHERÆ subrotundæ, purpureæ.

PISTILLUM: GERMINA duodecim in orbem posita, erecta, desinentia in STYLOS totidem patentes; STIGMATA acuta.

PERICARPIUM: CAPSULÆ oblongæ, compressæ, extrorsum acuminatæ, introrsum dehiscentes.

SEMINA plurima, subrotunda, parva.

ROOT biennial, branched, and furnished with numerous fibres.

LEAVES next the root disposed in the form of a full blown double rose, sessile, wedge-shaped, somewhat more than an inch long, fleshy, thick, above flat, on the under side a little convex, smooth on both sides, beneath whitish, the edges fringed with hairs, and generally tinged of a reddish colour, pointed, upright, the outer ones largest, the inner ones gradually smallest.

OFFSETTS standing on long footstalks, globular, the size of a pigeon's egg or larger, formed somewhat like the cone of a pine, the leaves laying one over another and upright.

FOOTSTALKS of the offsets cylindrical, round, iron-colour'd, slightly wooly, stretching out to a considerable length, naked, springing from the base of the root near the leaves.

FLOWERING-STEM from nine inches to a foot in height, upright, round, wooly, of a reddish colour, leafy, at top branched, the branches sustaining the flowers, spreading, and bending back.

FLOWERS numerous, crowded, upright, growing all one way, of a flesh colour.

CALYX: a PERANTHIUM divided usually into twelve segments, which are lanceolate, hirsute, edged with hairs, clammy, and purplish at top.

COROLLA: twelve or more PETALS twice the length of the calyx, lanceolate and flesh coloured.

STAMINA: FILAMENTS varying very much both in shape and number, generally fourteen, slender and tapering; ANTHERÆ roundish and purple.

PISTILLUM: twelve GERMINA placed in a circle, upright, terminating in the same number of spreading STYLES; STIGMATA pointed.

SEED-VESSEL: numerous oblong CAPSULES, flattened, outwardly terminating in a point, and opening inwardly.

SEEDS numerous, roundish and small.

Mr. RAY, in his *Synopsis*, and Mr. LIGHTFOOT, in his *Flora Scotica* doubt whether the Houseleek be originally a native of this country, however that be, it is now so common a plant on the house, or wall of every one that is in the least fond of plants, that we shall not apologize for introducing it among our London plants.

HALLER describes it among his *Swisserland* plants, and having gathered it on the Alps in its truly wild state, he enters very minutely into its description, and among other peculiarities he takes notice of the uncommon appearance which the Filaments often assume, and which is indeed such an appearance as would much puzzle an inexperienced Botanist, the Filaments as he truly observes are of two kinds, the one perfect and similar to the generality of Filaments, the other even when young are evidently enlarged towards the end, and throw out from their substance little oblong white corpuscles like the eggs of some insect, which indeed I first took them to be, not having then looked into Haller, but on examining a great number of flowers at different stages of their growth I found they were common to many filaments, and that those filaments which were thus enlarged were also more glutinous than the others, the Antheræ on their extremities were somewhat imperfect, as the fructification proceeded towards maturity, the filaments continued to enlarge about the middle, while the top was drawn out to a kind of beak, indeed in this state they seem to partake more of the nature of the Pistillum than of the Filaments, and for such would be liable to be taken, on cutting them through they appeared hollow and contained some of the same corpuscles which were observable on the outsidess of many of them, so that from their present appearance it was impossible to know that they were originally filaments, which may serve as a caution to students that in examining of flowers they should always begin with such as are not expanded. *Vid. 1. 2. 3. 4. 5. 6. 7. 8.*

Houseleek has been universally considered as a cooler, the leaves bruised, or its juice have been applied to burns, spreading ulcerations, fissures of the tongue, the piles, inflammations of the eye, &c. the juice mixt with a little alum and honey is recommended for the thrush in children, and the leaves themselves are frequently applied to corns.

LINNÆUS informs us that this plant is a preservative to the coverings of the houses in Smoland, it certainly may with the least possible trouble be made quickly to cover the whole roof of a house, whether that roof consists of tiles, thatch, or wood, by sticking the offsets on with a little earth or Cow Dung; and if it should not be found to have the good effect here spoken of, which I am by no means inclined to doubt, it forms at least a very pretty ornament on Barns, Stables, Out-Houses and Walls, particularly in the month of July when it flowers.



Fragaria sterilis.

FRAGARIA STERILIS. BARREN STRAWBERRY.

FRAGARIA *Lin. Gen. Pl. Icosandria Polygynia.*

Cal. 10. fidus. Petala 5. Receptaculum feminum ovatum, baccatum, deciduum.

Raii Syn. Gen. 25. HERBÆ SEMINE NUDDO POLYSPERMÆ.

FRAGARIA *sterilis* caule decumbente, ramis floriferis laxis. *Lin. Syst. vegetab. p. 396. Sp. Pl. 709.*

FRAGARIA caule prostrato, foliis ternatis retusis sericeis. *Haller. hist. helv. 1113.*

FRAGARIA *sterilis*. Bauh. pin. 327.

FRAGARIA minime vesca. *Park. 758.*

FRAGARIA minime vesca seu sterilis, *Ger. emac. 998.*

FRAGARIA non fragifera, vel non vesca. *J. B. 2. 395. Raii Syn. ed. 3. p. 254.*

Hudson Fl. Angl. ed. 2. p. 222. Lightfoot Fl. Scot. p. 288.

RADIX perennis, nigricans, sublignosa.

CAULES plurimi, spithamæi, procumbentes, crassi, suffruticosi, castanei, stipulis hirsutis tecti.

FOLIA e furculis annotinis prodeunt, ternata, obovata, ferrata, pilosa, sericea, subtus albida, petiolis valde pilosis.

STIPULÆ radicales, plurimæ, ovato acuminatæ, membranaceæ.

PEDUNCULI plurimi, ascendentes, teretes, pilosi, biflori, bractea trifoliata instructi.

FLORES albi, parvi.

CALYX: PERIANTHIUM monophyllum, planum, femidecemfidum, fig. 3, ex laciniis, quinque ovato acuminata sunt inter petala, petalis paulo longiora, quinque lanceolata, petalis paulo breviora, omnibus pilosis. fig. 1.

COROLLA: PETALA quinque, alba, parva, subrotunda, patentia, remota, calyci inserta.

STAMINA: FILAMENTA viginta circiter, in orbem posita, subulata, alba, primum inflexa, demum erecta, corolla breviora; ANTHERÆ flavæ, biloculares, fig. 4. 5.

PISTILLUM: GERMINA numerosa, minima, in capitulum collecta, subreniformia; STYLI simplices, lateri germinis inserti; STIGMATA simplicia. fig. 7, 8, 9.

RECEPTACULUM floris intra germina et filamenta glandulosum seu pulposum, villosum, minutum; fructus intra germina pilosum. fig. 6.

SEMINA plurima, exsucca, in capitulum collecta, e flavo fusca, appendiculo subvillosa, fig. 10. 11.

ROOT perennial, blackish and woody.

STALKS numerous, six or seven inches in length, procumbent, thick, somewhat shrubby, of a chestnut colour, and covered with hairy stipulæ.

LEAVES grow out of the last years shoots, three together, inversely oval, sawed at the edges, hairy, silky, whitish underneath, standing on footstalks which are very hairy.

STIPULÆ next the root, numerous, oval and pointed, of a membranous texture.

FLOWER-STALKS numerous, ascending, round, hairy, supporting two flowers, and furnished with a three-leav'd bractea.

FLOWERS white and small.

CALYX: a PERIANTHIUM of one leaf, flat, divided half way down into ten segments, fig. 3. of those, five which are betwixt the petals are oval, with a long point, somewhat longer than the petals fig. 1. five lanceolate, a little shorter than the petals, and all of them hairy. fig. 1.

COROLLA: five, white, small, roundish, spreading PETALS, remote from each other, and fixed to the calyx. fig. 2.

STAMINA: about twenty FILAMENTS, placed in a circle, tapering, white, at first bending inwards, afterwards upright, shorter than the corolla; ANTHERÆ yellow, having two cavities. fig. 4. 5.

PISTILLUM: GERMINA numerous, minute, forming a little head, somewhat kidney-shaped; STYLES simple, inserted into the side of the germen; STIGMATA simple, fig. 7, 8, 9.

RECEPTACLE of the flower betwixt the germina and filaments glandular or pulpy, villous and of a scarlet colour, of the fruit betwixt the germina hairy. fig. 6.

SEEDS numerous, pulplish, forming a little head, of a yellowish brown colour, with an appendage to each somewhat villous. fig. 10. 11.

THE name of Sterilis by which this species of Strawberry is distinguished, has not been given it because the plant does not produce perfect seed, but because it affords no eatable fruit; its leaves point it out as a Strawberry, but its fructification has a greater affinity with the Potentilla, betwixt which genus and the Strawberry this plant indeed seems to be the link.

In all the woods about London, as also on some heaths, we find it in blossom as early as March, and in June it ripens its seed.



Potentilla Anserina

POTENTILLA ANSERINA. SILVER-WEED.

POTENTILLA *Lin. Gen. Pl.* ICOSANDRIA POLYGYNIA

Cal. 10. fidus. *Petala* 5. *Sem.* subrotunda, nuda, receptaculo parvo exsucco affixa.

Raii. Syn. Gen. 25. HERBÆ SEMINE NUDO POLYSPERMÆ.

POTENTILLA *Anserina* foliis pinnatis ferratis, caule repente, pedunculis unifloris. *Lih. Syst. Vegetab* p. 396. *Spec. Pl.* p. 710. *Fl. Succ. n.* 452.

FRAGARIA caule repente, foliis pinnatis ferratis, subtus tomentosis, petiolis unifloris. *Haller. hist.* 1126.

POTENTILLA *Anserina. Scopoli. Fl. Carn.* n. 615.

POTENTILLA *Baubin. pin.* 321. *Park.* 593.

ARGENTINA *Gerard. emac.* 993.

PENTAPHYLLOIDES *Argentina dicta Raii. Syn.* p. 256. Wild Tanfy, Silver-weed.

Hudson Fl. Angl. ed. 2. p. 222.

Lightfoot Fl. Scot. p. 268.

Oeder. Fl. Dan. t. 544.

RADIX perennis, ramosa, extus nigro fusca seu albida pro ratione ætatis, fibrillosa, descendens.

CAULES seu potius flagellæ, plures, in longum extentæ, teretes, geniculatæ, rubicundæ, pubescentes, repentes.

FOLIA subtus villosa, albido-cinerea, supra pubescentia, viridia, sæpe etiam villosa, cinerea, petiolata, pinnata cum impari: foliolis sessilibus, oppositis, ovalibus, inciso-ferratis; quorum inferiora sensim minora; radicalia longius petiolata, procumbentia.

STIPULÆ parviusculæ, ovales, acutæ, in ipso petiolo communi inter paria foliolorum, superne sessiles, oppositæ, integerrimæ, subtus pariter villosæ.

PETIOLI villosi, supra plani, basi vagina concava, membranacea, tenera, pubescente, in petiolum utrinque decurrente.

VAGINÆ caulinae, h. e. stipulæ, ad genicula caulis solitariae, apice bifidæ, sæpe multifidæ, ferentes foliolum oblongum dentatum.

FLORES pedunculati, ex vaginis caulis stipulaceis, solitarii.

PEDUNCULI teretes, villosi, uniflori, erecti.

CALYX: PERIANTHIUM monophyllum, villosum, 10. fidum: laciniis ovatis, imbricatis, patenti reflexis; quarum 5 interiores integræ, acutiusculæ, basi lutescentes; exteriores 5 obtusiusculæ, incisæ. *fig.* 1.

PETALA quinque, lutea, ovata, obtusa, sessilia, calyci inserta. *fig.* 2.

STAMINA: FILAMENTA plurima, subulata, lutea, calyci inserta, erecta; ANTHERÆ cordatæ, obtusæ, erectæ, utrinque planæ. *fig.* 3.

PISTILLUM: GERMINA plurima, ovata, obusa, alba, villo receptaculi circumdata; STYLI subulati, germinis lateri adnati, lutescentes, staminibus breviores, STIGMATA truncata. *fig.* 4. 5.

RECEPTACULUM barbatum.

ROOT perennial, branched, externally of a dark brown or whitish colour according to its age, furnished with small fibres, and penetrating deep.

STALKS or rather runners, several extended to a considerable length, round, jointed, reddish, downy and creeping.

LEAVES hoary on the under side, of a whitish ashy-colour, on the upper side downy, and green, though sometimes also hoary and silvery, standing on footstalks, pinnated, with an odd one at the extremity; the small leaves sessile, opposite, oval, deeply cut in on the edge; the lowermost gradually the smallest; the radical ones standing on longer footstalks than the others and procumbent.

STIPULÆ small, oval, and pointed, placed on the common footstalk itself, betwixt each pair of the small leaves, above sessile, opposite, entire, underneath hoary also.

LEAF-STALKS villous, flat on the upper side, forming a sheath at the bottom, which is hollow, membranous, tender, downy, running down each side of the leaf stalk.

SHEATHS of the stalks or rather the stipulæ of the runners, are placed singly at the joints, bifid and often multifid at top, bearing an oblong indented small leaf.

FLOWERS standing on footstalks, proceeding singly from the joints of the runners.

FLOWER-STALKS round, villous, upright, supporting one flower.

CALYX: a PERIANTHIUM of one leaf, villous, divided into 10 segments, which are ovate, the edges laying one over the other, spreading, and somewhat turned back, the 5 innermost are entire, rather pointed, yellowish at the base, the outermost bluntish and jagged *fig.* 1.

PETALS five, of a yellowish colour, ovate, obtuse, sessile, twice the length of the calyx, very much expanded, and inserted into the Calyx. *fig.* 2.

STAMINA: numerous FILAMENTS, tapering, yellow, inserted into the Calyx, upright; ANTHERÆ heartshaped, blunt, upright, flat on both sides. *fig.* 3.

PISTILLUM: GERMINA numerous, ovate, obtuse, white, surrounded by the hairs, of the receptacle; STYLES tapering, growing out of the side of the germen, of a yellowish colour, shorter than the stamina; STIGMATA truncated. *fig.* 4. 5.

RECEPTACLE hairy.

FEW plants render themselves more conspicuous by the whiteness of their leaves than the *Potentilla Anserina*, indeed its old name of *Argentina* was derived from this very circumstance; it must be remark'd however that in this particular it is subject to much variation, the leaves being sometimes silvery on both sides, and sometimes entirely green, but it is most commonly found with the upper side of the leaves green, and the under side silvery; the more clayey the soil, the whiter the leaves are generally found to be.

It is a plant which thrives most in moist situations, especially if the soil be clayey, and the water apt to stagnate on it, in such situations it may be found almost every where about London, flowering from July to September.

RAY informs us on very respectable authority that the Boys about *Settle* in Yorkshire, call the roots of these plants by the name of *Moors*, and that in the winter season they dig them up and eat them, and that he himself had been a witness to their being turned up and greedily devoured by swine—it deserves the consideration of the farmer how far these animals may be render'd useful in this respect, not as to this plant only, but many others which are either noxious or useless.

Its medicinal virtues are wholly out of repute.



Papaver Rhoeas.

PAPAYER RHOEAS. SMOOTH-ROUND-HEADED POPPY.

PAPAYER *Lin. Gen. Pl.* POLYANDRIA MONOGYNIA.

Cor. 4-petala. *Cal.* 2-phyllus. *Capsula* 1-locularis, sub stigmate persistente poris dehiscens.

Raii Syn. Gen. 22. HERBÆ VASCULIFERÆ FLORE TETRAPETALO ANOMALÆ.

PAPAYER *Rhœas* capsulis glabris globosis, caule piloso multifloro, foliis pinnatifidis incisis. *Lin. Syst. vegetab.* p. 407. *Spec. plant.* p. 726. *Fl. Suecic.* n. 468.

PAPAYER foliis semipinnatis hispidis fructu ovato glabro. *Haller. hist.* n. 1064.

PAPAYER *Rhœas Scopoli. Fl. Carn.* n. 648.

PAPAYER *erraticum majus. Baubin pin.* 171.

PAPAYER *Rhœas. Ger. emac.* 371.

PAPAYER *erraticum Rhœas five sylvestre. Park.* 397.

PAPAYER laciniato folio, capitulo brevior glabro annuum *Rhœas dictum. Raii Syn.* p. 308. Red Poppy or Corn Rose.

Hudson. Fl. Angl. ed. 2. p. 230.

Lightfoot. Fl. Scot. p. 269.

RADIX annua, simplex, fibrosa.

CAULIS pedalis ad bipedalem, erectus, ramosus, teres, basi purpurascens, hispidulus, pilis basi bulbosis.

FOLIA sessilia, basi subvaginantia, utrinque hirsuta, pinnatifida, incisa, laciniis seu foliolis inæqualiter dentato ferratis, dentibus margine revolutis, apice callosis et spinula terminatis.

PEDUNCULI erecti, uniflori, teretes, hispidi, pilis patentibus.

CALYX: PERIANTHIUM diphyllum, ovatum, hispidulum, foliolis concavis, margine membranaceis, deciduis.

COROLLA: PETALA quatuor, magna, patentia, inæqualia, coccinea, ad basin maculâ nigra, nitidâ notata.

STAMINA: FILAMENTA numerosa, purpurea, capillaria; ANTHERÆ subrotundæ, compressæ; POLLEN viride. *fig.* 1. 2.

PISTILLUM: GERMEN ovatum, truncatum; STYLUS nullus, STIGMA convexum, radiatum; radiis circiter decem purpureis. *fig.* 3.

PERICARPIUM: CAPSULA ovata, apice truncata, et crenata, lævis, lineis elevatis tot quot stigmata notata, stigmate plano persistente crenato tecta. *fig.* 4.

SEMINA plurima, minima, ex atro-purpurascencia. *fig.* 5.

ROOT annual, simple and fibrous.

STALK from one to two feet high, upright, branched, round, purplish at bottom, somewhat hispid, the hairs bulbose at the base.

LEAVES sessile, forming a kind of sheath at bottom, hairy on both sides, pinnatifid and jagged, the small leaves into which the large one is divided unequally toothed, or sawed, each tooth rolled back at the edge, callous at top and terminated by a small spine.

FLOWER-STALK upright, each supporting one flower, round, hispid, the hairs projecting horizontally.

CALYX: a PERIANTHIUM of two leaves, ovate, hispid, the leaves hollow, membranous on the edge and deciduous.

COROLLA: four petals, large, spreading, unequal, of a bright scarlet colour, marked at the base with a shining black spot.

STAMINA: FILAMENTS numerous, purple and very slender; ANTHERÆ roundish, flatten'd: POLLEN green. *fig.* 1. 2.

PISTILLUM: GERMEN ovate, cut off at top; STYLE wanting; STIGMA convex and radiated, rays about ten of a purple colour. *fig.* 3.

SEED-VESSEL, shape of an egg cut off at top, where it is scolloped, smooth, mark'd with as many raised lines as there are stigmata, and covered with the stigma which is permanent, flat, and also scolloped on the edge. *fig.* 4.

SEEDS numerous, very minute, of a dark purple colour. *fig.* 5.

WE have growing wild in the neighbourhood of London, four different species of Poppy that have some affinity both in their foliage and flowers to one another, viz. the *Papaver Rhœas* smooth-round-headed Poppy, *Papaver dubium* smooth-long-headed Poppy, *Papaver hybridum* prickly-round-headed Poppy, and *Papaver Argemone* prickly-long-headed Poppy, of these the first, which is here figured is by far the most common; growing chiefly in Corn-fields, it has acquired generally the name of Corn Poppy, in some countries it is distinguished by the name of Red-Weed.

A Syrup made from an infusion of the flowers is used by the Apothecary, more for the sake of the beautiful colour it imparts to the medicine, than from its possessing any active principle; the Gardener is carefull to cultivate its numerous varieties, while the Farmer is no less anxious to root it from his fields, in which it is often so predominant as to appear like the real crop.

Although a Corn-field be its most usual place of growth it is nevertheless frequently found on dry banks and on walls, and according to such situations it varies extremely in its foliage, but constantly retains two of its striking characters, viz. the round or rather urn-shaped form of its capsules, and the projecting hairs on the flowering stem; these always distinguish it from the *dubium* to which it is very nearly allied.

It flowers from June to August.



Betonica officinalis

BETONICA OFFICINALIS. Wood BETONY.

BETONICA *Lin. Gen. Pl. DIDYNAMIA GYMNOSPERMIA Cal. aristatus. Corollæ lab. super. ascendens, planiusculum; Tubus cylindricus.*

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

BETONICA *officinalis* spica interrupta, corollarum lacinia labii intermedia emarginata. *Lin. Spec. Pl. p. 810. Fl. Suecic. n. 515.*

BETONICA foliis petiolatis, imis cordatis, superioribus ovatis, crenatis, spica brevi, foliis infidente. *Haller Hist. n. 264.*

BETONICA *officinalis Scopoli Fl. Carniol. p. 422.*

BETONICA purpurea. *Baubin pin.*

BETONICA vulgaris flore purpureo *Parkinson. p. 238. Gerard emac. 714. Raii Syn. p. 238. Wood-Betony. Hudson. Fl. Angl. ed. 2.*

Lightfoot Fl. Scot. p. 311.

RADIX perennis, crassitie minimi digiti, horizontalis, sublignosa, e luteo fusca, transversim rugosa, fibris plurimis albidis, tenacibus, fibrillosis, alte descendentibus instructa.

CAULIS pedalis aut ultra, erectus, plerumque simplex, in hortis ramosus, tetragonus, angulis obtusis, lateribus duobus magis excavatis, scabriusculus pilis rigidulis, deorsum versis, sub appressis, geniculatus, geniculis superne remotis.

FOLIA radicalia longe petiolata, oblongo-cordata, crenata, obtusa, venoso-rugosa, subnuda, undique minutim punctata, punctis excavatis, margine ciliata, caulina opposita, angustiora, potius serrata quam crenata, reflexa, marginibus sæpius revolutis.

FLORES purpurei, spicati.

SPICA terminalis, oblonga, e plurimis verticillis sessilibus, approximatis composita, inferioribus sæpius remotis.

BRACTEÆ plurimæ, verticillis subjectæ, lanceolatae, calyce paulo breviores.

CALYX: PERIANTHIUM tubulatum, interne villosum, turbinatum, quinque-dentatum, aristatum, persistens. *fig. 1.*

COROLLA monopetala, *Tubus* incurvus, infra glaber, albus, supra purpureus, extus et intus pubescens, calyce longior, *Labium* superius subrotundum, integrum, planum, erectum, inferius trifidum; *lacinula media* latiori, subrotunda, emarginata. *fig. 2.*

STAMINA: FILAMENTA quatuor, subulata, alba, pubescentia, tubo longiora, quorum duo inferiora paulo breviora; **ANTHERÆ** e rubro purpurascens, bilobæ, lobis subrotundis. *fig. 3.*

PISTILLUM: GERMEN quadripartitum; **STYLUS** subulatus, albidus, glaber, staminibus paulo longior; **STIGMA** bifidum, *fig. 4. 6.*

NECTARIUM *fig. 5.*

SEMINA quatuor, fusca, glabra, triquetra, latere exteriori convexo, interiori gibbo. *fig. 7.*

ROOT perennial, the thickness of the little finger, horizontal, somewhat woody, of a yellowish brown colour, wrinkled transversely, and furnished with numerous, long, whitish, tough, fibrous strings.

STALKS a foot or more in height, upright, generally simple, in gardens branched, four-corner'd, the corners obtuse, and two of the sides more deeply hollowed than the others, roughish, the hairs, somewhat rigid, turning downward and press'd towards the stalk, jointed, the joints near the top of the stalk removed far from each other.

LEAVES next the root standing on long footstalks, of an oblong heart-shaped figure, bluntly notched, obtuse, veiny and somewhat wrinkled, covered with few hairs, but dotted all over with small hollow points, the edge fringed with hairs, those on the stalk, opposite, narrower, and rather serrated than crenated, hanging down, the edges generally curled back.

FLOWERS purple, growing in a spike.

SPIKE terminal, oblong, composed of several sessile close whirls, the lowermost of which are most commonly remote from the others.

BRACTÆ numerous, placed under each whirl, lanceolate, and a little shorter than the Calyx.

CALYX: a PERIANTHIUM tubular, internally villous, broadest at top, having five teeth, which terminate in five long points, and are permanent. *fig. 1.*

COROLLA monopetalous; the *Tube* bending inwards, below smooth and white, above purple, downy both within and without, and longer than the calyx; the upper *Lip* roundish, entire, flat, and upright, the lower one divided into three segments, the middle one of which is broader than the others, roundish with a notch in the middle. *fig. 2.*

STAMINA: four FILAMENTS, tapering, white, and downy, longer than the tube, of which the two lowermost are somewhat the shortest; **ANTHERÆ** of a reddish purple colour, composed of two roundish lobes. *fig. 3.*

PISTILLUM: GERMEN divided into four parts; Style tapering, whitish, smooth, somewhat longer than the Stamina; **STIGMA** bifid. *fig. 4. 6.*

NECTARY *fig. 5.*

SEEDS four, brown, smooth, three corner'd, the outermost side convex the innermost gibbous. *fig. 7.*

ANTONIUS MUSA Physician to the Emperor **AUGUSTUS** wrote an entire book on this plant, whence it began to be held in such esteem in Italy as to occasion the Proverb *vende la tonica et compra la Betonica* that is *sell your coat and buy Betony* and when they wished to extol a person they would say *Tu hai piu virtu, che non ha la Betonica, you have more virtues than Betony.* *Matth. in Dioscor. p. 943. Raii Hist. p. 550.*

The leaves and flowers of Betony have an herbaceous roughish somewhat bitterish taste accompanied with a very weak aromatic flavour. This herb has long been a favourite among writers on the *Materia Medica* who have not been wanting to attribute to it abundance of good qualities. Experience does not discover any other virtue in Betony than that of a mild corroborant; as such, an infusion or light decoction of it may be drank as tea, or a saturated tincture in rectified spirit given in suitable doses, in laxity and debility of the viscera, and disorders proceeding from thence. The powder of the leaves, snuffed up the nose, provokes sneezing, and hence Betony is sometimes made an ingredient in sternutatory powders: this effect does not seem to be owing, as is generally supposed to any peculiar stimulating quality in the herb but to the rough hairs which the leaves are cover'd with. The roots of this plant differ greatly in quality from the other parts: their taste is bitter and very nauseous: taken in a small dose they vomit and purge violently, and are supposed to have somewhat in common with the roots of Hellebore. *Lewis's Disp. p. 103.*

Betony grows abundantly in all our woods, about Town, and on some of the Heaths, flowering in July, August and September.

RAY observes that it is sometimes found with white and sometimes with flesh-colour'd blossoms.



Stachys sylvatica.

STACHYS SYLVATICA. HEDGE NETTLE.

STACHYS *Lin. Gen. Pl.* DIDYNAMIA GYMNOSPERMIA.

Corollæ lab. super. fornicatum, lab. inferius lateribus reflexum, intermedia majore emarginata, *Stamina* deflorata versus latera reflexa.

Raii Syn. Gen. 24. SUFFRUCTICES ET HERBÆ VERTICILLATÆ.

STACHYS *sylvatica* verticillis sexfloris, foliis cordatis petiolatis. *Lin. Syst. Veg.* p. 447. *Sp. Pl.* 811. *Fl. Suecic.* n. 526.

CARDIACA foliis cordatis ferratis, verticillis nudis, spicatis. *Haller. hist.* n. 216.

STACHYS *sylvatica.* *Scopoli Fl. Carniol.* n. 706.

LAMIUM maximum sylvaticum foetidum. *Bauh. pin.* 231.

GALEOPSIS vera. *Ger. emac.* 709.

GALEOPSIS legitima Dioscoridis. *Park.* 608. *Raii Syn. ed.* p. 343. Hedge-Nettle.

GALEOPSIS five urtica iners magna foetidissima. *J. B. III.* 853.

Hudson Fl. Angl. ed. 2. p. 259. *Lightfoot Fl. Scot.* p. 312.

RADIX perennis, repens.
CAULIS erectus, pedalis ad tripedalem, quadrangularis, hirsutus, ramosus.
RAMI oppositi, suberecti, cauli similes.
FOLIA petiolata, cordata, acuta, ferrata, venosa, utrinque hirsuta.
PETIOLI hirsuti, longitudine foliorum.
FLORES saturate at vivide purpurei, verticillati, laxe spicati, verticillis sexfloris, brevibus pedicellis infidentibus; ad singulum geniculum setæ duodecim, utrinque sex, floribus subjectæ.
CALYX: PERIANTHIUM monophyllum, campanulatum, hirsutum, viscidum, punctis prominulis scabrum, purpurascens, quinquedentatum, dentibus acutis, patentibus, supremo paulo longiore. *fig.* 1.
COROLLA monopetala, ringens, purpurea, tubus brevissimus, albus, fauce tenuior, apice stragulatulus, et interne villosus; *Faux* nitida, subcylindracea, paululum incurvata, superne villis minimis adspersa; *Labium* superius ovatum, obtusum, integerrimum, inferne concavum, superne convexum, viscidulum, *Labium* inferius majus, trifidum; albo pulchre variegatum, lacinulâ intermedia subemarginata, replicata. *fig.* 2. 3. 4.
STAMINA: FILAMENTA quatuor, quorum duo paulo longiora, purpurea, nitida, medio paululum incrassata; et pilosa; ANTHERÆ primum obscure violaceæ, demum nigricantes; POLLEN album. *fig.* 5.
PISTILLUM: GERMEN quadripartitum; STYLUS filiformis; situ et longitudine staminum; STIGMA bifidum, acutum. *fig.* 6. 7. 8.
NECTARIUM: Glandula majuscula, totam basin germinis cingens. *fig.* 9.
PERICARPIUM nullum; Calyx continens
SEMINA quatuor, ovata, angulata. *fig.* 10.

ROOT perennial, and creeping.
STALK upright, from one to three feet high, square, hirsute and branched.
BRANCHES opposite, nearly like the stalk.
LEAVES standing on footstalks, heart-shaped, pointed, ferrated, veiny, hirsute on both sides.
LEAF-STALKS hirsute, the length of the leaves.
FLOWERS of a deep but bright colour, growing in whirls and forming a loose spike, about six flowers in each whirl, sitting on short flowerstalks, at each joint, twelve setæ or fine pointed leaves, six on each side, placed under the flowers.
CALYX: a PERIANTHIUM of one leaf, bell-shaped, hirsute, viscid, rough with little prominent points, of a purplish colour, having five pointed spreading teeth, of which the uppermost is somewhat the longest. *fig.* 1.
COROLLA monopetalous, ringent, purple, the tube very short, white, slenderer than the faux, strangled at top where it is villous on the inside; *Faux* shining, somewhat cylindrical, bending a little down, on the upper part covered with numerous short hairs; the upper *Lip* ovate, obtuse, entire, below concave, above convex, and somewhat viscid, the lower *Lip* large, trifid, beautifully variegated with white, the middle segment slightly notched, and having its sides folded back. *fig.* 2. 3. 4.
STAMINA: four FILAMENTS, two of which are a little longer than the others, purple, shining, thickened a little in the middle and hairy; ANTHERÆ at first of a dull violet colour, finally blackish; POLLEN white. *fig.* 5.
PISTILLUM: GERMEN divided into four parts; STYLE thread-shaped, situated with and of the same length as the stamina; STIGMA bifid, and pointed. *fig.* 6. 7. 8.
NECTARY: a largish Gland surrounding the whole base of the germen. *fig.* 9.
SEED-VESSEL none, the Calyx containing.
SEEDS; four ovate and angular. *fig.* 10.

In the parts of fructification, there is a considerable similarity betwixt this species and the palustris, but in the form of its leaves it differs very materially.
It grows in almost every shady ditch about London and elsewhere, and flowers in June and July, its blossoms have sufficient beauty to recommend them, and they might perhaps be more an object of admiration, did not the plant, on being in the least bruised, smell disagreeably, if not bruised, its scent is rather of the agreeable kind.
The Snail, excepted few animals, appear to relish it.

STACHYS PALUSTRIS. CLOWN'S ALLHEAL.

STACHYS *Lin. Gen. Pl. DIDYNAMIA GYMNOSPERMIA.*

Corollæ lab. super. fornicatum, lab. inferius lateribus reflexum, intermedia majore emarginata. STAMINA deflorata versus latera reflexa.

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

STACHYS *palustris* verticillis subsexfloris, foliis lineari lanceolatis semiamplexicaulibus sessilibus. *Lin. Syst. Vegetab. p. 447. Sp. Pl. 811. Fl. Suec. n. 528.*

STACHYS foliis hirsutis, elliptico-lanceolatis, breviter petiolatis, verticillis spicatis. *Haller Hist. n. 257.*

STACHYS *palustris. Scopoli Fl. Carn. n. 707.*

STACHYS *palustris foetida. Baub pin. 236.*

SIDERITIS *Anglica strumosa radice. Park. 587.*

PANAX *coloni. Gerard. emac. p. 1005. Raii Syn. p. 242. Clown's Allheal.*

Lightfoot Fl. Scot. p. 313.

Hudson. Fl. Angl. ed. 2. p. 259.

RADIX perennis, repens, stolonibus plurimis, albis, per terram in longum extensis, quorum extremitates sub finem æstatis in tubera intumescunt.

CAULIS bipedalis, erectus, ramosus, fistulosus, quadrangularis, lateribus planiusculis, angulis hispidulis, pilis deorsum versis, geniculatus, geniculis pilosis, purpureis.

RAMI cauli similes.

FOLIA opposita, sessilia, subamplexicaulia, lanceolata, patentia, serrata, subrugosa, nervo medio subtus scabriusculo.

FLORES verticillati, spicati, pallide purpurei, verticillis decemfloris, octo in circulum dispositis, uno utrinque superimposito.

SPICA spithamæa, erecta.

BRACTEÆ ovato-acuminatæ, integerrimæ, hirsutæ, trinerves, deflexæ.

CALYX: PERIANTHIUM monophyllum, tubulatum, quinquesidum, hirsutulum, purpurascens, lineis decem elevatis notatum, ore patulo, dentibus subæqualibus, acuminatis. *fig. 1.*

COROLLA monopetala, ringens, *tubus* brevissimus, cylindraceus, pilis interne coronatus, *faux* oblonga, compressiuscula, subincurvata, punctis duobus prominulis ad basin labii superioris, *labium* superius erectum, subovatum, fornicatum, emarginatum, superne viscidum, *labium* inferius majus, trifidum, albo et purpureo pulchre variegatum, lacinulâ intermedia maxima, concava. *fig. 2. 3. 4.*

STAMINA: FILAMENTA quatuor, quorum duo paulo breviora, ad lentem subpilosa, medio crassiora, rubicunda, nitida; ANTHERÆ e purpureo-nigricantes; POLLEN album. *fig. 5. 6.*

PISTILLUM: GERMEN quadripartitum; STYLUS filiformis longitudine staminum; STIGMA bifidum, acutum. *fig. 7. 8. 9.*

ROOT perennial, creeping, shoots numerous, white, extending under ground to a great length, their extremities at the close of the summer becoming tuberous.

STALK two feet high, upright, branched, hollow, four corner'd, the sides flattish, the corners somewhat hispid with hairs which turn downward, jointed, the joints hairy, and purple.

BRANCHES like the stalk.

LEAVES opposite, sessile, slightly embracing the stalk, lanceolate, spreading, serrated, somewhat wrinkly, the midrib on the under side of the leaf roughish.

FLOWERS of a pale purple colour, growing in whirls which form a spike, in each whirl is ten flowers, eight placed circularly, and one on each side above them.

SPIKE six or eight inches high.

FLORAL-LEAVES ovate and pointed, entire, hirsute, three-rib'd, and turned downward.

CALYX: a PERIANTHIUM of one leaf, tubular, divided into five segments, slightly hirsute, purplish, marked with ten elevated lines, the mouth open, the teeth nearly equal and pointed. *fig. 1.*

COROLLA monopetalous, ringent; *tube* very short, cylindrical, crowned internally with hairs; *mouth* oblong, somewhat flattened and a little bent, marked with two prominent dots at the base of the upper *lip*; upper *lip* upright, somewhat ovate, arched, nicked, and viscid at top; the lower *lip* larger, divided into three segments, beautifully variegated with white and purple, the middle segment very large and hollow. *fig. 2. 3. 4.*

STAMINA: four FILAMENTS, two of which are somewhat shorter than the other two, hairy when magnified, thickest in the middle, reddish and shining; ANTHERÆ, of a purplish black colour; POLLEN white. *fig. 5. 6.*

PISTILLUM: GERMEN divided into four parts; STYLE thread shaped, the length of the stamina; STIGMA bifid, and pointed. *fig. 7. 8. 9.*

GERARD has been extremely lavish in his praises of this plant as a vulnerary, whence it has acquired its name of *Clown's Wound-wort*, or *All-heal*. He mentions the case of a labouring man, who in reaping cut a deep gash in his leg, which by the application of this herb was presently healed, and which doubtless would have healed equally soon from the application of any other simple herb, or a little dry lint. In sound constitutions nature often performs wonders in this way, which generally are attributed to the application.

It behoves the Farmer to know it, as it is a very noxious plant in many corn-fields, encreasing very much by its roots, which towards the close of the summer become tuberous at their extremities; it encreases also by seed. Hogs are said by LINNÆUS to be fond of the roots; when the crop is off they may probably be turned into those fields where the plant abounds to great advantage.

It is not confined to corn fields, but is often met with by road sides, especially in moist situations. It flowers in July and August.



SCUTELLARIA *galericulata*. Common HOODED WILLOW-HERB.

SCUTELLARIA *Lin. Gen. Pl. DIDYNAMIA GYMnospermia. Calyx ore integro: post florescentiam clauso, operculato.*

Raii Syn. Gen. 14. SUFFRUTICES ET HERBÆ VERTICILLATÆ.

SCUTELLARIA *galericulata* foliis cordato-lanceolatis crenatis, floribus axillaribus. *Lin. Syst. Vegetab. p. 457. Sp. Pl. 835. Fl. Suecic. n. 538.*

CASSIDA foliis oblonge cordatis crenatis verticillis nudis bifloris. *Haller Hist. 280.*

CASSIDA *galericulata. Scopoli Fl. Carniol. 74.*

LYSIMACHIA *cærulea galericulata, seu Gratiola cærulea. Bauh. pin. 246.*

LYSIMACHIA *galericulata. Gerard. emac. 477.*

GRATIOLA *cærulea, f. latifolia major. Park. 221.*

CASSIDA *palustris vulgatio* flore *cæruleo. Raii Syn. p. 244. Hooded Willow-herb.*

Hudson. Fl. Angl. p. 265.

Lightfoot Fl. Scot. 320.

RADIX perennis, tenuis, geniculata, alba, repens.
CAULES pedales aut bipedales, erecti, quadrati, lateribus concaviusculis, bilineatis, geniculati, rigiduli, ramosi, ramis oppositis, suberectis.

FOLIA oblongo-cordata, obtusiuscula, inæqualiter crenata, superiora acuta.

BRACTEÆ duæ, minimæ, setacæ, ad basin pedunculi.

FLORES bini, secundi, cærulei, villosi, subtus albid.

CALYX: PERIANTHIUM monophyllum, brevissimum, tubulatum: ore truncato, squamula incumbente operculi instar clausilis. *fig. 1.*

COROLLA monopetala, ringens. *Tubus* brevissimus, retrorsum flexus. *Faux* longa, compressa. *Labium superius* concavum, trifidum: *lacinula media* concava, emarginata; *lateralibus* planis, acutiusculis, intermediæ subjectis. *Labium inferius* latius, emarginatum, *fig. 2.*

STAMINA: FILAMENTA quatuor alba, medio crassiora et ad unum latus villosula, duo breviora: ANTHERÆ parvæ, luteæ. *fig. 3.*

PISTILLUM: GERMEN quadripartitum; STYLUS superne paululum incrassatus, STIGMA simplex, incurvatum, acuminatum. *fig. 4. 5. 6.*

PERICARPIUM nullum, *Calyx* bipartibilis, operculo clausus, capsulæ vicem gerens.

SEMINA 1 ad 4 subrotunda, pallide fusca, superficie scabra. *fig. 9. 10.*

RECEPTACULUM seminum subrotundum. *fig. 8.*

ROOT perennial, slender, jointed, white and creeping.
STALKS from one to two feet high, upright, square, the sides a little hollow'd and mark'd with two lines, jointed, stiffish, branched, the branches opposite and nearly upright.

LEAVES of an oblong heart shape, somewhat blunt, standing on footstalks, rather wrinkly and unequally crenated, those on the top of the plant pointed.

FLORAL-LEAVES two, very small and setaceous, at the base of the flower stalk.

FLOWERS growing in pairs, one way, of a blue colour, downy, and whitish underneath.

CALYX: a PERIANTHIUM of one leaf, very short, and tubular; the mouth as if cut off, having a scale on it which seems to do the office of a lid. *fig. 1.*

COROLLA monopetalous and ringent. *Tube* very short and bent backwards. *Throat* long, compressed. *upper Lip* hollow, and trifid; the *middle segment* hollow and nicked; the *side ones* flat, pointed and placed under the middle one, *Lower Lip* broad and nicked. *fig. 2.*

STAMINA: four white FILAMENTS, thickest in the middle and a little villous on one side, two shorter than the others; ANTHERÆ small and yellow. *fig. 3.*

PISTILLUM: GERMEN divided into four parts, STYLE towards the top a little thickend; STIGMA simple, hooked and pointed. *fig. 4. 5. 6.*

SEED-VESSEL: none, the *Calyx* which splits into two parts, being closed by its lid answers the purpose of a capsule.

SEEDS from one to four, roundish, of a pale brown colour, with a roughish surface. *fig. 9. 10.*

RECEPTACLE of the seeds roundish. *fig. 8.*

BOTANY would certainly please more in the study of it, were the Genera as in the present instance distinctly characterized, the singular and curious construction of the Calyx in this genus is very deserving of a minute attention.

This species of Scutellaria grows commonly on the edges of rivers and ponds, and flowers in June, July and August.

It has a very encreasing root, and hence should cautiously be introduced into the Garden.

HALLER attributes to it the smell of Garlick which it scarcely merits.



Scutellaria galericulata

Lanscom: Sculp.

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ANTIRRHINUM SPURIUM. ROUND-LEAVED FLUELLIN.

ANTIRRHINUM *Lin. Gen. Pl. DIDYNAMIA GYMNOSPERMIA.*

Cal. 5. phyllus. *Corollæ* basis deorsum prominens, nectarifera. *Capfula* 2-locularis.

Raii Syn. Gen. 18. HERBÆ FRUCTU SICCO SINGULARI, FLORE MONOPETALO.

ANTIRRHINUM *spurium* foliis ovatis alternis, caulibus procumbentibus. *Lin. Syst. Vegetab.* p. 464. *Sp. Pl.* 851.

ANTIRRHINUM caule procumbente, foliis villosis, ovatis, imis conjugatis, superioribus alternis. *Haller. Hist.* p. 771.

ANTIRRHINUM *spurium.* *Scopoli Fl. Carniol.* 771.

ELATINE folio subrotundo. *Baubin pin.* 252. *Park.* 533.

VERONICA *fœmina* Fuchii seu *Elatine* *Ger. em.* 625.

LINARIA *Elatine dicta* folio subrotundo.

Raii Syn. p.* 282. Round-leaved Female Fluellin.

Hudson. Fl. Angl. ed. 2. p. 272.

The *Antirrhinum spurium* bears so great an affinity in its habit and fructifications (*vid. fig. 1, 2, 3.*) to the *Elatine*, that it would be superfluous to describe it minutely; it is sufficiently distinguished from that plant by its leaves alone, which in this species are always round, in that hastate, at least those of the stalk, for in both species the leaves next the root are roundish and generally indented; of the two the *spurium* is the largest plant.

Although LINNÆUS has given it the name of *spurium*, there is no reason to suppose it the spurious offspring of the *Elatine*, as the two plants generally grow separate. About *Alton*, in *Hampshire*, the *spurium* abounds in many corn fields, without the least mixture of the *Elatine*; and about *Coomb-wood*, in *Surry*, the *Elatine* may be found in plenty, without the least traces of the *spurium*: while in some counties they grow promiscuously in the same field.

The round-leaved is by far the scarcest plant near town; I found it last July tolerably plentiful and in blossom, in a corn field betwixt *Beckenham* and *Shirley Common*.



Antirrhinum spurium

*Brassica muralis*

BRASSICA MURALIS. WILD ROCKET.

BRASSICA *Linnaei Gen. Pl.* TETRADYNAMIA SILIQUOSA.

Cal. erectus, connivens. *Sem* globosa. *Glandula* inter stamina breviora et pistillum, interque longiora et calycem.

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

BRASSICA *muralis* foliis lanceolatis sinuato serratis læviusculis, caule erecto glabro. *Hudson Fl. Angl.*

p. 290.

ERUCA foliis glabris, pinnatis, pinnis linearibus difformibus. *Haller hist. n.* 461.

ERUCA *sylvestris*. *Matt. in Diosc. p.* 531. cum icone.

ERUCA *tenuifolia* perennis flore luteo. *J. B.* 2. 861.

ERUCA *sylvestris*. *Gerard emac.* 246.

ERUCA *sylvestris* vulgator. *Parkinson.* 818.

ERUCA *sylvestris* major vulgator foetens. *Hist. Ox.* II. 230. *Raii Syn. p.* 296. Wild Rocket.

RADIX perennis, sublignosa, intra muros profunde penetrans, vix evellanda.

CAULIS sesquipedalis, erectus, ramosus, teres, basi sublignosus, perennans.

FOLIA pinnatifido-laciniata, glabra, patentia, odoris ingrati.

CALYX priusquam flores aperiuntur quasi bicornis, cornibus brevibus, pilo uno, alterove instructis; flore aperto tetraphyllus, foliolis oblongis, concavis, duobus cum apicibus gibbosis deorsum tendentibus, duobus erectis. *fig.* 1. 2. 3.

COROLLA: PETALA quatuor, majuscula, calyce duplo longiora, unguiculata, erecta, flava. *fig.* 4.

NECTARIUM: *Glandulae* quatuor, duo extra basin filamentorum præter morem longæ, apice extrorsum incurvatae, duo intra basin filamentorum breviora, subrotunda. *fig.* 7. 8.

STAMINA: FILAMENTA sex, quorum duo breviora, subulata, erecta, flavescentia; ANTHERÆ incumbentes, subsagittatae. *fig.* 5.

PISTILLUM: GERMEN oblongum, tenue; STYLUS brevissimus; STIGMA capitatum. *fig.* 6.

PERICARPIUM: *Siliqua* sesquiuncialis, teres, utrinque linea prominenti notata. *fig.* 9.

SEMINA plurima, minuta, fusca, subovata, compressiuscula.

ROOT perennial, somewhat woody, penetrating deep into the walls, scarcely to be pulled out.

STALK a foot and a half high, upright, branched, round, at bottom somewhat woody and perennial.

LEAVES pinnatifid and jagged, smooth, spreading, of a disagreeable smell.

CALYX before the flowers are expanded has the appearance of having two horns, which are short, and furnished with one, or two hairs; on the expansion of the petals, it is composed of four, oblong, hollow leaves, two of which, being gibbous at top hang down, and the other two stand upright. *fig.* 1. 2. 3.

COROLLA four PETALS, rather large, twice the length of the calyx, clawed, upright, and of a yellow colour. *fig.* 4.

NECTARY: four Glands, two placed on the outside of the base of the filaments, unusually long, externally bent in at top, two placed on the inside of the base of the filaments, shorter and roundish. *fig.* 7. 8.

STAMINA: six FILAMENTS, two of which are shorter than the rest, tapering, upright and yellowish; ANTHERÆ laying across the filaments, and somewhat arrow-shaped. *fig.* 5.

PISTILLUM: GERMEN oblong, slender, Style very short; STIGMA forming a little head. *fig.* 6.

SEED-VESSEL: a Pod about an inch and a half long, round, mark'd on each side with a prominent line. *fig.* 9.

SEEDS numerous, small, brown, somewhat oval, and a little flatten'd.

MATTHIOLUS, one of the first Botanists who has taken notice of this plant, calls it *Eruca sylvestris*, and has given us a tolerable good figure of it, sufficient at least with his annexed description to identify it: CASPAR BAUHINE quotes this plant from Matthiolus, with this addition, *Eruca sylvestris major lutea caule aspero*, now there certainly is no appearance either in the plant, in Matthiolus's description, or figure, which justifies those expressions, for as TOURNEFORT observes in his *Hist. des plantes des environs de Paris* the branches have sometimes a few small hairs on them but by no means can they be called rough, this description of Bauhine's has therefore created much confusion, nor is the name of J. BAUHINE which Tournefort has adopted perhaps totally free from objection, the term *tenuifolia* though proper when placed as the opposite to *latifolia*, in the present instance is liable to mislead.

Did we entertain the least idea of the insufficiency of Matthiolus's, figure or description, TOURNEFORT and RAY have described it with so much accuracy as to leave no doubt of their being well acquainted with it, they both particularize its disagreeable smell, Tournefort's expressions are *son odeur approche de celle des huiles fétides rectifiées sur la chaux vive*; RAY's *odor totius plantæ fœtidus et ingratus, nostris saltem naribus*; if any thing more were wanting to their descriptions we might add some peculiarities in its fructifications, as that the Calyx before it opens appears to have two little short horns from each of which issue one or more fine hairs, when the flower is expanded two of the leaves of the Calyx stand almost upright, while the other two bend back, and that two of the glands are uncommonly long.

Mr. HUDSON in the first edition of his *Flora Anglica*, calls this plant *Brassica Erucastrum*, in the second edition he has made it a new species, it certainly does not accord with LINNÆUS's specific description of that plant, its fructifications denote it to be a *Brassica*, and it does not agree with any of the other species of *Brassica* in LINNÆUS, I have therefore adopted Mr. HUDSON's name.

The Garden Rocket *Brassica Eruca* was formerly much cultivated in Gardens for medicinal use and for Sallads; but is at present less common, the seeds have a pungent taste of the mustard kind but weaker, they have long been celebrated as aphrodisiacs, and may, probably, have in some cases a title to this virtue in common with other acrid plants, and this as RAY observes, was not only the opinion of the Physicians but also of the Poets of former times, which he illustrates by the following quotations:

MARTIAL. *Et Venerem revocans Eruca morantem.*

COLUMELLA. *Excitat ad Venerem tardos Eruca maritos.*

OVID. *Nec minus Erucas jubeo vitare salaces.*

The *Brassica muralis* grows very plentifully in and about London, and is I believe of general growth on most of the old Walls and Castles throughout England, with us in particular it grows on the walls around the Tower, at the back of Bedlam, and near Hyde-Park, it is also frequently found among rubbish, it flowers during the greatest part of the summer.

CARDAMINE AMARA. BITTER LADIES-SMOCK.

CARDAMINE *Lin. Gen. Pl. TETRADYNAMIA SILIQUOSA. Siliqua* elastice diffiliens, valvulis revolutis. *Stigma* integrum, *Calyx* fubhians.

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ et SILICULOSÆ.

CARDAMINE *amara* foliis pinnatis axillis stoloniferis. *Lin. Syst. Vegetab. p. 497. p. 915. Fl. Suecic. n. 586.*

CARDAMINE foliis pinnatis, fubrotundis, angulosis. *Haller. hist. 474.*

CARDAMINE stolonifera *Scopoli, ic. 39. ?*

NASTURTIUM aquaticum majus et amarum. *Baub. pin. 104.*

CARDAMINE flore majore elatior. *Tourn. Inst. R. H. Raii Syn. 291. Bitter Cresses.*

Hudson Fl. Angl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 350.

RADIX perennis, tenuis, albida, repens.

CAULIS pedalis ad bipedalem, erectus, basi stoloniferus, flexuosus, fubangulatus, glaber, ramosus.

FOLIA *radicalia* magna, rotundata, fubintegerrima; *caulina* fuberecta, pinnata, pinnarum paria plerumque tria cum impari, pinnæ oblongæ, angulatæ, angulis denticulo terminatis, læves, margine ad lentem viſæ minutim ciliatæ, extimâ majori et in plures angulos divisâ.

FLORES albi, pro magnitudine plantæ, minores, fofculis *Cardamines pratensis* perquam fimiles, nunquam vero colorati.

PEDUNCULI ebractæati, teretes, læves alterni.

CALYX: PERIANTHIUM tetraphyllum, foliolis concavis, erectis, flaveſcentibus, margine membranaceis, deciduis. *fig. 1.*

COROLLA: PETALA quatuor, fuberecta, alba, basi viſeſcentia, oblongo-ovata, fubemarginata, plana, lineis profundis exarata. *fig. 2.*

STAMINA: FILAMENTA ſex, quorum duo breviora, fubulata, alba; ANTHERÆ incumbentes, purpureæ; apicibus convolutis. *fig. 5. 3.*

GLANDULÆ ut in *Cardamine pratensi*. *fig. 7.*

GERMEN compreffum, minute articulatum, longitudine ſtaminum; STYLUS brevis, obliquus; STIGMA minimum. *fig. 4.*

PERICARPIUM: *Siliqua* et *Semina* ſicut in *Cardamine pratensi*, niſi majora. *fig. 8. 9.*

ROOT perennial, ſlender, whitish, and creeping.

STALK from one to two feet high, upright, at bottom throwing out runners from the alæ of the leaves, crooked, ſomewhat angular, ſmooth, ſhining, and branched.

LEAVES *next the root* large, round, and almoſt perfectly entire; *on the ſtalk* nearly upright, pinnated, conſiſting for the moſt part of three pair of pinnæ with an odd one, pinnæ oblong, angular, each angle terminated by a ſmall tooth or point, ſmooth, the edge, if viewed with a magnifier, appearing finely ciliated, the terminal pinna larger than the others, and divided into more angles.

FLOWERS white, conſidering the largeneſs of the plant rather ſmall, very like thoſe of the common Ladies-smock, but never coloured.

PEDUNCULES without any bractæa, round, ſmooth, and alternate.

CALYX: a PERIANTHIUM of four leaves, the leaves oblong, hollow, upright, yellowish, membranous at the edge, and deciduous. *fig. 1.*

COROLLA: four PETALS, ſomewhat upright, white, with a greenish baſe, of an oblong-oval ſhape, ſlightly notched, flat, with lines deeply engraven. *fig. 2.*

STAMINA: ſix FILAMENTS, two of which are ſhorter than the others, tapering and white; ANTHERÆ incumbent, purple, the top rolled up. *fig. 5. 3.*

GLANDS as in the common Ladies-smock. *fig. 7.*

GERMEN flat, finely jointed, the length of the ſtamina; STYLE ſhort and oblique; STIGMA very minute. *fig. 4.*

SEED-VESSEL: *Pod* and *Seeds* ſimilar to thoſe of the common Ladies-smock, but larger. *fig. 8. 9.*

The *Cardamine amara* differs from the *pratensis* in divers reſpects, yet its affinity is ſo conſiderable as often to occasion its being miſtaken for it; if the following characters, which diſtinguiſh it in particular from that plant, are attended to, the ſtudent will not eaſily be miſled.

The *Cardamine pratensis* is a plant common in almoſt every wet meadow, this on the contrary is much more local, and rather affects to grow on the edges of rivulets and ſtreams of water, than in the open meadow; the ſtalk-leaves of the *pratensis* are uſually narrow, the ſides cloſing almoſt together, theſe on the contrary are large, broad, and very angular, more reſembling indeed the water-cress, from which ſimilarity this plant has obtained among the old Botanists the name of *Nasturtium*; it is in every reſpect a larger plant than the *pratensis*, its bloſſoms excepted, which are nearly of the ſame ſize; and, as in the *pratensis* they are always of a purple colour, more or leſs deep, ſo in this they are always perfectly white, the antheræ, which in the *pratensis* are of a yellow colour, here form a ſtriking conſtraſt, and appear of a deep purple, and that, ſo far as I have obſerved, invariably, the tips of them are alſo more curled up; the ſtyle, which in the *pratensis* is upright, in the *amara* has an unuſual obliquity in it, which I believe has not been noticed; towards the bottom of the ſtalk the *amara* is more diſpoſed to throw out runners from the alæ of the leaves than the *pratensis*, but this character depends, in a conſiderable degree, on the circumſtances of ſituation, moiſture, &c. the *pratensis* has a ſimilar diſpoſition in degree, and I have ſeen it throw out roots from the midrib of the bottom leaves.

This plant may be conſidered as one of our plantæ rariores, I have noticed it here and there on the banks of the Thames, and the creeks running from it about *Batterſea* and *Chelſea*, Mr. *Alchorne* has obſerved it about *Lewiſham*, and in the neighbourhood of *Uxbridge*, it grows in abundance.

It flowers in May, and ripens its ſeed in June.

Its virtues and uſes remain to be diſcovered, it has a ſtrong biting taſte of the cress kind, but not that degree of bitterneſs which would juſtify the epithet *amara*.



Cardamine amara.





CARDAMINE PRATENSIS. COMMON LADIES-SMOCK.

CARDAMINE *Lin. Gen. Pl. TETRADYNAMIA SILIQUOSA* *Siliqua* elastice diffiliens valvulis revolutis. *Stigma* integrum. *Cal.* subhians.

Raii Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

CARDAMINE *pratensis* foliis pinnatis: foliolis radicalibus subrotundis, caulinis lanceolatis. *Lin. Syst. Vegetab. p. 497. Sp. Pl. 915. Fl. Suec. n. 585.*

CARDAMINE foliis pinnatis, radicalibus subrotundis, caulinis linearibus. *Haller. hist. n. 473.*

CARDAMINE *pratensis*, *Scopoli Fl. Carn. n. 819.*

NASTURTIIUM *pratense* magno flore *Bauh. p. 104.*

FLOS CUCULI *Dod. pempt. 592.*

CARDAMINE *Ger. emac. 259.*

NASTURTIIUM *pratense* majus five Cardamine latifolia. *Parkins 285. Raii Syn. p. 299. Ladies Smock or Cuckow-flower.*

Hudson Fl. Angl. ed. 2. p. 294. Lightfoot Fl. Scot. p. 349.

RADIX	perennis, crassiuscula, alba, multis fibris tenuibus capillata.	ROOT	perennial, thickish, white, furnished with a large tuft of fine fibres.
CAULIS	dodrantalis, erectus, apice parum ramosus, teres, obsolete angulosus, lævis, firmus, purpureascens.	STALK	about nine inches high, upright, at top a little branched, round, scarce perceptibly angular, smooth, stiffish, with a purplish tinge.
FOLIA	radicalia sæpius manca, in orbem sparsa, pinnata, pinnis subrotundis, inequaliter tridentatis, extimo majori, et sæpius quinque dentato, brevissime pedicellata, levia; caulina pinnata, erecta, pinnis plurimis, confertis, sublinearibus, concavis.	LEAVES	next the root frequently imperfect, spreading in a circular form, pinnated, the pinnæ roundish, running out into three unequal angles or teeth, the outermost largest, and having for the most part five angles, standing on very short footstalks and smooth; those on the stalk pinnated, upright, the pinnæ numerous, growing thickly together, somewhat linear and hollow.
RACEMUS	terminalis, pedunculatus, nudus, glaber.	RACEMUS	or Flower-bunch, terminal, furnished with footstalks, naked and smooth.
CALYX	PERIANTHIUM tetraphyllum, foliolis ovato-oblongis, obtusis, margine membranaceis, concavis, alternis basi gibbosis, deciduis. <i>fig. 1.</i>	CALYX	a PERIANTHIUM of four leaves, which are oval, obtuse, membranous at the edge, hollow, the alternate ones gibbous at the base, and deciduous. <i>fig. 1.</i>
COROLLA	cruciformis, dilute purpurea seu albida; Petala obovata, submarginata, unguibus flavescens, longitudine calycis. <i>fig. 2.</i>	COROLLA	cross-shaped, of a pale purple or whitish colour; Petals inversely oval, slightly notched, claws of a yellowish colour, the length of the calyx. <i>fig. 2.</i>
STAMINA	FILAMENTA sex, subulata, quorum duo breviora, incurvata; ANTHERÆ cordato lineares, incumbentes, flavæ. <i>fig. 3.</i>	STAMINA	six Filaments, tapering, the two shortest of which bend inward; ANTHERÆ heart-shaped yet linear, incumbent and yellow. <i>fig. 3.</i>
NECTARIUM	Glandulæ quatuor, quorum duo filamentorum breviorum basin cingunt, duo extra basin filamentorum longiorum locantur.	NECTARY	four Glands, two of which surround the base of the shortest filaments, and two are placed on the outside of the base of the long filaments.
PISTILLUM	GERMEN cylindraceum, tenue; STYLUS brevissimus; STIGMA capitatum, staminibus paulo brevior. <i>fig. 4. 5.</i>	PISTILLUM	GERMEN cylindrical, and slender; STYLE very short; STIGMA forming a little head, and not quite so long as the stamens. <i>fig. 4. 5.</i>
PERICARPIUM	Siliqua cylindraco-compressa, bilocularis, bivalvis, valvulis dehiscendo spiritaliter revolutis. <i>fig. 6. 7.</i>	SEED-VESSEL	a Pod cylindrical, and somewhat flattened, of two cavities and two valves, the valves in opening curling up. <i>fig. 6. 7.</i>
SEMINA	plurima, compressa, flavescens. <i>fig. 8.</i>	SEEDS	numerous, flattened and yellowish. <i>fig. 8.</i>

The flowers of the *Cardamine pratensis* were a few years since introduced into practice, and recommended as serviceable in various spasmodic complaints by Sir W. BAKER, in the first volume of the *Medical Transactions*, such as the convulsive Asthma, spasms of the abdominal and other muscles, St. Vitus's Dance, Epilepsy, &c. the dose recommended was from a scruple to half a drachm or more of the powder of the dried flowers, to be taken morning and evening.

From the disuse into which this medicine has fallen, it should seem that it had not answered the expectations of succeeding practitioners neither here nor abroad. *Vid. Murray's Appar. Medicam. V. 2. p. 320.*

It gives a name to the *Papilio Cardamine* or *Orange-tip Butterfly*, which according to LINNÆUS feeds on it. Sometimes it is found with double flowers, in which state it is kept in the gardens of the curious, where it requires a moist shady situation.

In the colour of its blossoms it is subject to much variation, they are usually white, with a tinge of purple, and ornament our meadows in the delightful month of May, as described by Shakespeare in *Loves Labour lost*:

*When daisies py'd and violets blue,
And cuckow-buds of yellow hue,
And LADY-SMOCKS all silver white
Do paint the meadows with delight, &c.*

It probably acquired its plain English name of Lady-smock from the white appearance which its blossom gives to the meadows where it abounds, resembling linen bleaching on the grafs:

"When maidens bleach their summer smocks,"
a practice very general formerly, when most families spun and bleached their own linen.



Sisymbrium sylvaticum

Sanson del.

SISYMBRIUM SYLVESTRE. CREEPING WATER-ROCKET.

SISYMBRIUM *Linnaei. Gen. Plant. TETRADYNAMIA SILIQUOSA.*

Siliqua dehiscens valvulis rectiusculis. *Cal.* patens. *Cor.* patens,

Raii. Syn. Gen. 21. HERBÆ TETRAPETALÆ SILIQUOSÆ ET SILICULOSÆ.

SISYMBRIUM sylvestre filiquis declinatis oblongo-ovatis, foliolis lanceolatis ferratis. *Lin. Syst. vegetab. p. 497.*

SISYMBRIUM foliis pinnatis, pinnis dentatis diffitis *Haller. Hist. n. 485.*

SISYMBRIUM Roripa? *Scopoli Fl. Carniol. p. 823.*

SISYMBRIUM palustre repens Nasturtii folio. *Tournefort plant autour de Paris p. 37.*

ERUCA sylvestris minor luteo parvoque flore *Baubin pin. 98.*

ERUCA quibusdam sylvestris repens, flosculo luteo *Baub. Hist. 2 p. 866.*

ERUCA aquatica *Ger. emac. 248. Park. 1242. Raii. Syn. 297. Water-Rocket. Raii. Hist. p. 808;*

Hudson. Fl. Angl. ed. 2. p. 296.

Lightfoot Fl. Scot p. 351.

RADIX perennis, albida, tenuis, insigniter repens, plurimis germinibus tuberculosa.

CAULES plurimi, pedales, suberecti, debiles, interdum purpurascens, glabri, angulato-striati, ramosi, ramis hirsutulis.

FOLIA radicalia pinnatifida, pinnis subovatis, dentato-ferratis, lævia, petiolo purpurascens, caulina alterna, subpinnatifida, pinnis lanceolatis, ferratis, integrifve.

PETIOLUS superne canaliculatus.

FLORES parvi, lutei.

PEDUNCULUS communis multiflorus, flexuosus, Pedunculi proprii alterni, patentes, aut sursum paululum curvati, filiqua plerumque longiores.

CALYX: PERIANTHIUM tetraphyllum, foliolis ovatis, concavis, erectis, æqualibus, flavescentibus, fig. 1.

COROLLA: PETALA quatuor, unguiculata, obtusa, patentia, calyce paulo longiora, fig. 2.

NECTARIUM: Glandulae quatuor, faturate virides, in circulum coadunatae.

STAMINA: FILAMENTUM sex, quorum duo breviora, subulata, flava; ANTHERÆ incumbentes, fig. 3.

PISTILLUM: GERMEN oblongum, teres, longitudine staminum, fig. 5, STYLUS brevissimus; STIGMA capitatum, villosum. fig. 4.

PERICARPIUM: SILIQUA brevis, vix semuncialis, teres, sursum curvata, plerumque abortiva, fig. 6.

ROOT perennial, whitish, slender, remarkably creeping, thickly beset with germs which give it a knobbed appearance.

STALKS numerous, a foot high, nearly upright, weak, sometimes purplish, smooth, somewhat angular and finely grooved, branched, the branches very slightly hairy.

LEAVES next the root pinnatifid, the pinnæ or small leaves somewhat oval, toothed or sawed, and smooth, the leaf stalk purplish, leaves on the stalk alternate, ferrated or entire.

FLOWER-STALK hollowed above.

FLOWERS small and yellow.

FLOWER-STALK: the general flower-stalk bent in and out and supporting many flowers, the partial ones alternate, spreading almost horizontally, or bent a little upwards, generally longer than the pod.

CALYX: a PERIANTHIUM of four leaves, which are oval, hollow, upright, equal and yellowish. fig. 1.

COROLLA: four PETALS each having a claw, and blunt at the point, spreading and a little longer than the calyx, fig. 2.

NECTARY: four glands, of a deep green colour, united in a circle.

STAMINA: six filaments, two of which are shorter than the others, tapering, and yellow, ANTHERÆ laying across the Filaments. fig. 3.

PISTILLUM: GERMEN oblong, round, the length of the stamina fig. 5, STYLE very short; STIGMA forming a little head and villous. fig. 4.

SEED-VESSEL a short Pod, scarce half an inch long, round, bending upwards, generally abortive. fig. 6.

TOURNEFORT in his *Histoire des Plantes des environs de Paris*, has described our plant with much accuracy, it appears from his account to be plentiful not only along the banks of the *Seine*, but in the courts before Houses, and in moist situations, it is also described by RAY, in his *Hist. Plant*; with us it is not of such general growth but in those situations in which it does occur we find it in great abundance; the watery part of *Totbill Fields Westminster* is over run with it; I scarcely know any plant that requires to be introduced into a Garden with more caution than this, especially if the ground be moist.

It continues to flower from June to September. Both RAY and TOURNEFORT mention the seeds of this plant, it is probable they found it growing in a dry situation favourable to their ripening, the seed vessels which I have had an opportunity of seeing have all proved abortive, which I suspect is natural to the plant as it encreases so considerably by its root.

This plant affords no striking generic character, but may be referred to almost any Genus in the Order.



GERANIUM pyrenaicum. perennial DOVES-FOOT CRANESBILL.

GERANIUM *Lin. Gen. Pl.* MONADELPHIA DECANDRIA.

Monogyna. Stigmat. 5. Fructus rostratus, 5-coccus.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

GERANIUM *pyrenaicum* pedunculis bifloris, foliis inferioribus quinquepartito-multifidis, rotundatis; superioribus trilobis, caule erecto. *Linn. Syst. Vegetab.* p. 514.

GERANIUM pedunculis bifloris, foliis multifidis, laciniis obtusis, inæqualibus, petalis bifidis. *Gerard. Fl. Gallo-prov.* p. 434. fig. 16. 2. *Hudson Fl. Angl. ed 2.* p. 302. *Lightfoot Fl. Scot.* p. 367.

RADIX perennis.

CAULES suberecti, pubescentes, pedales, et ultra, ramosi, geniculati, geniculis paululum incrassatis.

FOLIA *radicalia* rotundata, hirsutula, venosa, margine sæpe rubicunda, septemlobata, lobis subtrifidis, laciniis obtusiusculis, mucronatis, intermedia majore; *caulina* opposita, lobis paucioribus, iisque postice magis remotis.

PETIOLI *radicales*, prælongi, teretes, pubescentes, si discindantur extremitatibus suis puncta quatuor alba exhibentes.

STIPULÆ ad singula genicula quaternæ, utrinque binæ, genicula ambientes, bifidæ, vel trifidæ, rubentes, persistentes.

PEDUNCULI pubescentes, bifidi, biflori, Pedicelli longitudine pedunculi, basi stipulis quaternis minoribus notati.

FLORES majusculi, purpurei, antequam aperiuntur nutantes, postea erecti.

CALYX: PERIANTHIUM quinquepartitum, laciniis ovato-lanceolatis, brevi mucrone fusco obtusiusculo terminatis, trinerviis, ciliatis, subviscosis. *fig. 1.*

COROLLA: PETALA quinque, calyce duplo longiora, obcordata, apice bifida, basi villosa. *fig. 2.*

NECTARIUM: Glandulæ quinque flavescentes ad basin Stamini. *fig. 5.*

STAMINA: FILAMENTA decem, alba, apice purpurascencia; ANTHERÆ cœrulescentes; POLLEN album, globosum. Antheræ extus positæ pollen præ cæteris dimittunt, et dein decidunt, nunquam vero abortiunt. *fig. 3.*

PISTILLUM: GERMEN pentagonum, viride; STYLUS fulcatus; STIGMATA quinque, longitudine Antherarum. *fig. 4.*

FRUCTUS pentacoccus, *Arillus* carinatus, hirsutulus. *fig. 6.*

SEMEN ovatum, fuscum, læve.

ROOT perennial.

STALKS nearly upright, and downy, a foot high, or more, branched, and jointed, the joints a little swelled.

LEAVES *of the root* of a roundish figure, somewhat hirsute, and veiny, the edge often reddish, divided into seven lobes, each of which is subdivided into about three bluntish segments, terminated by a short point, the middle segment the largest; *those of the stalk* opposite, composed of fewer lobes, and those more widely separating behind.

LEAF-STALKS *next the root* very long, round, and downy, exhibiting if cut across four white dots on their extremities.

STIPULÆ: four at each joint, two on each side, surrounding the joint, divided into two or three segments, of a reddish colour and permanent.

FLOWER-STALKS downy, bifid, supporting two flowers, Partial flower-stalks the length of the general one, and furnished at bottom with four smaller stipulæ.

FLOWERS largish and purple, before they open hanging down, afterwards becoming upright.

CALYX: a PERIANTHIUM divided into five oval pointed segments, terminated by a short brown bluntish point, having three ribs, edged with hairs, and slightly clammy. *fig. 1.*

COROLLA: five PETALS twice the length of the calyx, inversely heart-shaped, bifid at top, at bottom villous. *fig. 2.*

NECTARY: five yellowish Glands placed at the bottom of the Stamina. *fig. 5.*

STAMINA: ten FILAMENTS, purplish at top, ANTHERÆ blueish; POLLEN white and globular. The outer row of antheræ shed their pollen first and then drop off, but are never infertile. *fig. 3.*

PISTILLUM: GERMEN five corner'd, of a green colour; STYLE grooved; STIGMATA five, the length of the Antheræ. *fig. 4.*

FRUIT composed of five prominent seeds, *seed-covering* mark'd with a prominent line, and slightly hirsute. *fig. 6.*

SEED oval, brown, and smooth.

The great similarity existing between the present Geranium, the *molle*, and *rotundifolium*, has occasioned no small confusion among the synonyms of Authors, which as Haller observes, are covered with impenetrable obscurity.

Nevertheless an attentive observance of the plants themselves, as they grow wild, will shew that they may be distinguished without any great difficulty. In treating of the *molle* which is the most liable to be mistaken for this species, I observed that it was subject to many varieties, particularly in the colour of its blossoms, that its stalks, always procumbent when the plant grew alone, were liable to grow upright among grass and herbage, and that in some rich pastures the flowers approached almost to the size of those of the present plant.—Having cultivated most of our English Geraniums I can with certainty declare that the *molle* is strictly an annual, and the *pyrenaicum* perennial, this then constitutes an essential difference between the two, besides, the *pyrenaicum* usually grows to twice the size, its blossoms also are more than thrice as large, it is never procumbent but always nearly upright, and it is likewise, with us at least, a much scarcer plant.

Mons: GERARD in his *Flora Galloprovincialis* has the merit of first giving an accurate description and figure of this plant, he supposes it to be the *Geranium columbinum perenne pyrenaicum maximum* of TOURNEFORT whence LINNÆUS has given it the name of *pyrenaicum*; Mr. HUDSON in the first edition of his *Flora Anglica* called it *perenne*, but in the last he has adopted the name of LINNÆUS, I have hitherto found this plant growing wild in one spot only, viz. in the dry part of the pasturage in *Battersea* Fields, on the left hand side of the road as you pass from London by the Thames side, betwixt the Red House and Chelsea Bridge.

In Chelsea Garden it comes up as a weed and is there found also with white flowers.

It blows in June and July.

MALVA ROTUNDIFOLIA. DWARF MALLOW.

MALVA *Linnaei Gen. Pl.* MONADELPHIA POLYANDRIA.

Cal. duplex: exterior triphyllus. *Arilli* plurimi, monospermi.

Raii Syn. Gen. 15. HERBÆ SEMINE NUDO POLYSPERMÆ.

MALVA *rotundifolia* caule prostrato, foliis cordato-orbiculatis obsolete quinquelobis, pedunculis fructiferis declinatis. *Lin. Syst. Vegetab.* p. 520.

MALVA caule repente, foliis cordato orbicularibus, obsolete quinquelobis. *Haller hist.* n. 1070.

MALVA *rotundifolia.* *Scopoli Fl. Carn.* n. 858.

MALVA *fylvestris folio rotundo.* *B. pin.* 314.

MALVA *fylvestris pumila.* *Ger. em.* 930.

MALVA *fylvestris minor.* *Park.* 299. *Raii syn.* 251. Small wild Mallow or Dwarf Mallow.

Hudson. Fl. Angl. ed. 2. p. 307.

Lightfoot. Flor. Scot. p. 375.

RADIX annua, in terram alte descendens, albida.

CAULES plures ex una radice, prostrati, dodrantes, etiam pedales et ultra, teretes, pubescentes, extus purpurascens.

FOLIA alterna, petiolata, utrinque minutim pubescentia, scabriuscula, subrotundo reniformia, quinque vel septemloba; lobis rotundatis, margine serrata, subtus subseptemnervia, extrema sensim majora.

PETIOLI teretes, elongati, pubescenti-scabri, supra fulcati.

STIPULÆ duæ, oppositæ, parviusculæ, lanceolatæ, acutæ, ciliatæ, pubescentes.

FLORES plerumque gemini, pedunculati, axillares, pedunculis petiolis brevioribus, filiformibus, teretibus, pubescentibus, sæpius inæqualibus.

CALYX: PERIANTHIUM duplex, exterius triphyllum; foliolis lineari subulatis, obtusis; interius campanulatum, pubescenti scabrum, quinquefidum; laciniis ovato acutis, erectis, carinatis, margine serratis, subundulatis. *fig. 1.*

COROLLA alba, venis rubellis picta, PETALA quinque, lineari cuneiformia, obtusa, emarginata, calyce paulo longiora, erecta subsessilia. *fig. 2.*

STAMINA: FILAMENTA plurima, monadelpha, columna cylindrica, glabra, corolla breviora, superne breviter libera.

ANTHERÆ parvæ, subrotundæ, echinatæ, undique nutantes. *fig. 3.*

PISTILLUM: GERMEN orbiculatum, depresso, infra receptaculum corollæ; STYLI plures, subulati, erecti, vix pubescentes, longitudine staminum; STIGMATA simplicia. *fig. 4.*

SEMINA ut in fylvestri, at minora. *fig. 5.*

ROOT annual, striking deep into the earth, of a whitish colour.

STALKS several from one root, laying prostrate on the ground, from nine to twelve inches in length or more, round, downy, and most commonly purplish.

LEAVES alternate, standing on footstalks, covered on both sides with a fine down, slightly rough, of a roundish, kidney-shaped form, usually divided into five or seven roundish lobes, serrated at the edge, having generally on the under side seven ribs, those farthest from the root gradually largest.

LEAF-STALKS round, long, downy, with a slight roughness, grooved on the upper side.

STIPULÆ two, opposite, smallish, lanceolate, pointed, edged with hairs and downy.

FLOWERS generally growing in pairs, connected to flower stalks, which spring from the axils of the leaves, and which are shorter than the leaf-stalks, thread shaped, round, downy, and for the most part unequal.

CALYX: a double PERIANTHIUM, the outer one composed of three linear tapering leaves, bluntish at the point; the inner one bell-shaped, downy, with a slight roughness, divided into five segments, of an oval pointed shape, upright, keel'd, the edge serrated and slightly waved. *fig. 1.*

COROLLA white, striped with reddish veins, PETALS five, of a narrow wedge shape, blunt, notched at the extremity, a little longer than the calyx, upright, nearly sessile. *fig. 2.*

STAMINA: FILAMENTS numerous, united into one body, the column cylindrical, smooth, shorter than the corolla, at top short and loose.

ANTHERÆ small, roundish, prickly, hanging down all around. *fig. 3.*

PISTILLUM: GERMEN orbicular, flatten'd, placed below the receptacle of the corolla; STYLES numerous, tapering, upright, scarcely downy, the length of the stamina; STIGMATA simple. *fig. 4.*

SEEDS as in the fylvestris, but smaller. *fig. 5.*

We meet with this species of Mallow on dry Banks, also under Pales and Walls in great plenty, it is obviously distinguished from the common mallow by having a procumbent stalk, and small white flowers slightly tinged with red.

It continues to blow from June to September.

HALLER and SCOPOLI describes the stalk as creeping, our plant certainly does not creep.



Geranium robertianum



Stemon. Schlegel



LATHYRUS PRATENSIS. MEADOW VETCHLING.

LATHYRUS *Linn. Gen. Pl. DIADELPHIA DECANDRIA.*

*Stylus planus, supra villosus, superne latior.
Cal. laciniae superiores 2 breviores.*

Raii Syn. Gen. 23 HERBÆ FLORE PAPILIONACEÆ SEU LEGUMINOSÆ.

LATHYRUS *pratensis* pedunculis multifloris, cirrhis diphyllis simplicissimis: foliolis lanceolatis. *Lin^s Syst. Vegetab. p. 552. Sp. pl. p. 1033.*

LATHYRUS scapis multifloris, foliis lanceolatis, capreolis simplicibus. *Haller. hist. 436.*

LATHYRUS *pratensis. Scopoli Fl. Carniol. p. 64.*

LATHYRUS sylvestris luteus, foliis viciæ. *Baubin. pin. 344.*

LATHYRUS luteus sylvestris dumetorum. *Baub: hist. 2. p. 304. t. 304.*

LATHYRUS sylvestris flore luteo. *Ger. emac. 1231. Park. 1062. Raii Syn. p. 320. Tare-everlasting, common yellow bastard Vetchling.*

Hudson, Fl. Angl. p. 317. ed. 2. Lightfoot Fl. Scot. p. 391. Oeder. Fl. Dan. ic. 527.

RADIX perennis, albida, repens.

CAULIS pedalis, etiam tripedalis et ultra, debilis, cirrhis sustentatus, angulatus, subpilosus, ramosus.

FOLIA bina, lanceolata, trinervia, subtus villosula.

PETIOLI trigoni, subpilosi, longitudine stipularum.

STIPULÆ semisagittatæ, latitudine foliorum, hamis duobus subinde instructi.

PEDUNCULI tetragoni, longi, suboctoflori.

FLORES lutei, erecti, racemosi, secundi.

PEDICELLI teretes, villosi, longitudine calycis.

CALYX: PERIANTHIUM monophyllum, tubulatum, breve, cylindraceum, subpilosum, quinque-dentatum, dentibus acuminatis, inferioribus longioribus, sursum paulisper curvatis, *fig. 1.*

COROLLA papilionacea, vexillum submarginatum, reflexum, prope basin superne foveis duabus intus prominentibus notatum *fig. 2*; Alæ duæ; apice rotundatæ *fig. 3*; Carina longitudine alarum. *fig. 4.*

STAMINA: FILAMENTA diadelphe, (simplex et novemfidum, *fig. 5. 6.* affurgentia; ANTHERÆ subrotundæ, flavæ.

PISTILLUM: GERMEN viride, compressum, oblongum; STYLUS erectus, superne latior apice acuto; STIGMA a medietate styli ad apicem antice villosum. *fig. 7.* a sculptore male expressum.

PERICARPIUM: Legumen sesquiunciale, compressum, nigricans, continens Semina octo ad duodecim, subrotunda.

ROOT perennial, whitish and creeping.

STALKS a foot high, sometimes even three feet or more, weak, supported by its tendrils, angular, slightly hairy, and branched.

LEAVES growing in pairs, lanceolate, having three ribs, and slightly downy underneath.

LEAF-STALKS three-cornered, somewhat hairy, the length of the stipulæ.

STIPULÆ in the shape of an half arrow, the breadth of the leaves, sometimes having two projections behind.

FLOWER-STALKS four cornered, long, supporting about eight flowers.

FLOWERS yellow, upright, growing in a bunch, all one way.

PARTIAL FLOWER-STALKS round, villous, the length of the calyx.

CALYX: a PERIANTHIUM of one leaf, tubular, short, cylindrical, somewhat hairy, furnished with five teeth, which are long and pointed, the lowermost longest, and bent a little upwards.

COROLLA papilionaceous, *Standard* slightly notched, turned back, on the upper side near the base marked with two little cavities which project inwards, *fig. 2*; *Wings* rounded at top *fig. 3*; *Keel* the length of the wings *fig. 4.*

STAMINA: ten FILAMENTS, rising upwards, nine united together, and one forming a separate body; *fig. 5. 6.* ANTHERÆ roundish and yellow.

PISTILLUM: GERMEN green, flattened, oblong; STYLE upright, broadest above with a pointed top; STIGMA from the middle of the style to the top villous on the fore part, *fig. 7.* badly expressed in the engraving.

SEED-VESSEL a *Pod* an inch and an half long, flat-ten'd, of a blackish colour, containing from eight to twelve roundish *Seeds.*

THE following observations on this plant by the ingenious author of *Essays* relating to Agriculture and rural Affairs, will not be unacceptable to such of our readers as are fond of Husbandry and rural improvements; before I had seen his remarks, I had often thought it a plant which at least deserved a trial, and might, in particular soils, be cultivated to advantage. I remember once in particular to have seen a piece of stiff soil belonging to Lord Loughborough, at his seat near Mitcham, which produced an excellent crop of pasture, consisting chiefly of this plant, and the *Festuca pratensis*.

It grows very frequently in pastures and hedges, and flowers in June and July.

“ The

“ The common yellow vetchling, *Lathyrus pratensis*, or everlasting-tare, might likewise be on many occasions
“ cultivated with profit by the farmer. It grows with great luxuriance in stiff clayey soils, and continues to yield
“ annually for any length of time, a great weight of forage, which is deemed to be of the very best quality : and
“ as it is equally fit for pasture or for hay, the farmer would have it in his power to apply it to the one or the
“ other of these uses, at any period that might best suit his convenience.—It is likewise attended with this far-
“ ther advantage, that as it continues to grow with equal vigour in the end of summer as in the beginning
“ thereof, it would admit of being pastured upon in the spring, till the middle or even the end of May, should
“ it be necessary ; without endangering the loss of the crop of hay : which cannot possibly be done with rye-grass,
“ or any other plant usually cultivated by the farmer, except clover ; which is equally unfit for early pasture or
“ for hay. This plant would be the more valuable to the farmer that it grows to the greatest perfection on such
“ soils as are altogether unfit for producing sain-foin ; the only plant hitherto cultivated that seems to possess quali-
“ ties approaching to those of this one.—It must, however, be acknowledged, that the difficulty of procuring seeds
“ of this plant in abundance, must be a very great bar to the general cultivation thereof : for although these ripen
“ very well in our climate, yet the quantity that it produces is so inconsiderable, and the difficulty of getting them
“ separated from the pod is so great, as to make it necessary to gather them by the hand ; in which way the
“ quantity obtained must be very trifling. To counterbalance this defect, however, it may be observed, that it is
“ not only an abiding plant, which never leaves the ground where it has been once established ; but that it also
“ increases so fast by its running roots, that a very few plants at first put into a field, would soon spread over the
“ whole and stock it sufficiently. If a small patch of good ground is sowed with the seeds of this plant in
“ rows about a foot distant from one another, and the intervals be kept clear of weeds for that season, the
“ roots will spread so much as to fill up the whole patch next year ; when the stalks may be cut for green fodder
“ or for hay. And if that patch were dug over in the spring following, and the roots taken out with the hand,
“ it would furnish a great quantity of plants, which might be planted in such fields as you meant to have filled
“ with this, at the distance of two or three feet a-part ; which would probably there take root, and quickly
“ overspread the whole field. And as there might always be a sufficient quantity of the roots left to fill again
“ the patch from whence they were taken, it would be ready to furnish a fresh supply the next season, and
“ might thus continue to serve as a nursery for ever afterwards. It appears to me, that this would be the most
“ likely method of propagating this plant with ease ; but I have not as yet had sufficient experience thereof to
“ be able either to tell precisely the expence of it, or to answer positively for the success thereof in all cases.”

TRIFOLIUM AGRARIUM. HOP TREFOIL.

TRIFOLIUM *Lin. Gen. Pl.* DIADELPHIA DECANDRIA.

Flores subcapitati. Legumen vix calyce longius, non dehiscens, deciduum.

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

TRIFOLIUM *agrarium* spicis ovalibus imbricatis: vexillis deflexis persistentibus, calycibus nudis, caule erecto. *Lin. Syst. Veg. p. 574. Sp. Pl. 1087. Fl. Suecic. 671.*

TRIFOLIUM spicis ovatis densissimis, streptentibus, caulibus diffusis. *Haller. hist. n. 363.*

TRIFOLIUM *agrarium. Scopoli Fl. Carn. n. 931.*

TRIFOLIUM pratenſe luteum capitulo Lupuli vel agrarium. *Baub. pin.*

TRIFOLIUM luteum minimum. *Ger. emac. 1186. Raii Syn. p. 330. Hop-Trefoil.*

Oeder. Fl. D. t. 558.

Hudson. Fl. Angl. ed. 2. p. 328.

Lightfoot. Fl. Scot. p. 409.

RADIX annua.

CAULIS palmaris aut dodrantalis, plerumque diffusus, teres, villosus, ramosus, fruticulofus, sæpe rubens.

STIPULÆ binæ, ovato-acuminatæ, striatæ.

FOLIA oblongo-cordata, plerumque nuda, nervosa, nervis plurimis, rectis, acute serrata.

PETIOLI teretes, foliis ipsis paulo breviores.

PEDUNCULI erecti, nudi, petiolis multo longiores.

FLORES quadraginta circiter, imbricatim densissime glomerati, vix manifeste pedicellati, capituli majusculi, subrotundi, primum lutei, demum fuscii.

CALYX: PERIANTHIUM minimum, membranaceum, flavescens, a corolla ægre distinguendum, aut separandum, quinque-dentatum, dentibus duobus superioribus brevissimis, tribus inferioribus setaceis, pilosis, corolla brevioribus. *fig. 1.*

COROLLA calyce duplo longior, persistens, *Vexillum* suberectum, nervosum, margine serratum, perfecta florescentia magnitudine augetur, et deorsum flectitur; *Alæ* conniventes, vexillo breviores: *Carina* minima, intra alas, usque brevior. *fig. 2.*

PERICARPIUM: LEGUMEN corolla tectum, membranaceum, monospermum, parietibus tenuissimis, cito corrumpentibus, relicta tantum futura cum mucrone. *fig. 4.*

SEMEN unicum, nitidum, fuscum sive aurantiacum. *fig. 5.*

ROOT annual.

STALK from six to nine inches in length, generally spreading, round, villous, branched, a little hard or shrubby, often of a reddish colour.

STIPULÆ growing in pairs, oval, pointed, and striated.

LEAVES of an oblong heart-shape, generally smooth, finely rib'd, the ribs strait, sharply sawed about the margin.

LEAF-STALKS round, and somewhat shorter than the leaves themselves.

FLOWER-STALKS upright, naked, much longer than the leaf-stalks.

FLOWERS about forty, standing on very short foot-stalks, which are scarce perceptible, laying very close one over the other, and forming largeish heads of a roundish shape, which at first are yellow, and afterwards brown.

CALYX: a PERIANTHIUM very minute, membranous, yellowish, with difficulty distinguished or separated from the corolla, having five teeth, of which the two uppermost are very short, the three lowermost setaceous, hairy, and shorter than the corolla. *fig. 1.*

COROLLA twice the length of the calyx, permanent; *Standard* nearly upright, rib'd, the edge serrated, the flowering being over, it becomes encreased in size and turns back; *Wings* closing, shorter than the standard; *Keel* very small, within the wings and shorter than them. *fig. 2.*

SEED-VESSEL: a Pod covered with the corolla, membranous, containing one seed, the sides being very thin, soon decay, and leave nothing but the future with its point. *fig. 4.*

SEED single, shining, of a brown or orange colour. *fig. 5.*

The name of *Hop Trefoil* has been with much propriety bestowed on this plant, as the little heads formed by the flowers are larger and more resembling the hop than those of any of the other species.

We are carefully to distinguish it from the *Trifolium procumbens*, than which it is in every respect larger, and less procumbent.

It is by no means an uncommon plant in dry pastures, on the borders of fields, and in gravelly soils; in some fields I have observed it naturally to form a considerable part of the Farmers crop, which though a small one was judged to make excellent fodder.

It is perhaps one of those plants which merits the further attention of the Husbandman.

June and July are the months in which it usually flowers.

Scopoli doubts, and apparently with great propriety, whether the *Trifolium spadiceum* of LINNÆUS be a species distinct from this.



Trifolium agrarium

TRIFOLIUM REPENS. DUTCH CLOVER.

TRIFOLIUM *Linnaei* Gen. Pl. DIADELPHIA DECANDRIA

Flores subcapitati. Legumen vix calyce longius, non dehiscens, deciduum.

Raii Synops. Gen. 24. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

TRIFOLIUM *repens* capitulis umbellaribus, leguminibus tetraspermis, caule repente. *Lin. Syst. Vegetab.*

p. 572. Sp. Pl. p. 1080. Flor. Suec. n. 665.

TRIFOLIUM caule repente; spicis depressis; filiquis tetraspermis. *Haller Hist. n. 367.*

TRIFOLIUM *repens* *Scopoli. Fl. Carniol.*

TRIFOLIUM *pratense* album *C. B. pin. 327.*

TRIFOLIUM minus *pratense*, flore albo *Ger. emac. 1185. Parkinson. 1110. Raii. Syn. p. 327. White-flower'd Trefoil.*

Hudson. Fl. Angl. ed. 2. p. 324.

Lightfoot Fl. Scot. p. 404.

RADIX perennis, fibrosa.

CAULES plurimi, repentes, late sparsi, teretes, simpliciter, glabri, virides, seu purpurascens.

STIPULÆ ovato-lanceolatae, venosae, venis purpurascens.

FOLIA terna, variabilia, nunc ovata, obtusa, nunc obcordata, emarginata, acute serrata, viridia, seu purpurascens, macula lunulata albicante plerumque notata.

PEDUNCULI longissimi, erecti, striati.

FLORES plerumque albi, purpurascens etiam occurrunt, glomerati, junioribus erectis, maturis deflexis, fuscis.

CAPITULA majuscula, praesertim in culta planta, sphaerica.

CALYX: PERIANTHIUM monophyllum, quinquedentatum, saepius coloratum, striis decem elevatis notatum, dentibus setaceis, duobus superioribus paulo longioribus. *fig. 1.*

COROLLA papilionacea, calyce duplo longior; VEXILLUM oblongum, submarginatum, reflexum, *fig. 2. ALÆ* duae, vexillo multo breviores; *fig. 3. CARINA* brevissima, basi bifida. *fig. 4.*

STAMINA: FILAMENTA diadelphe, simplex et novemfidum; *fig. 5. 6. ANTHERÆ* parvae, luteae.

PISTILLUM: GERME oblongum, teretiusculum; STYLUS subulatus, longitudine germinis; STIGMA flavescens, capitatum. *fig. 7.*

PERICARPIUM: LEGUMEN oblongum, teres, mucronatum, torulosum. *fig. 8. continens*

SEMINA duo ad quatuor. *fig. 9.*

ROOT perennial and fibrous.

STALKS numerous, creeping, spreading wide, round, unbranched, smooth, green, or purplish.

STIPULÆ ovate and pointed, veiny, the veins purplish.

LEAVES growing three together, variable as to their shape, being sometimes ovate and blunt, sometimes inversely heartshaped and notched at the end, sharply fawed round the edge, of a green or purplish colour and having most commonly a whitish mark in the center.

FLOWER-STALKS very long, upright and striated.

FLOWERS generally white, but sometimes purplish, growing in a cluster, the young ones upright, the old ones hanging down and becoming brown.

HEADS large, especially in the cultivated plant, and of a round shape.

CALYX: a PERIANTHIUM of one leaf, having ten teeth, generally coloured, marked with ten ribs, the teeth bristle-shaped, the two uppermost somewhat the longest. *fig. 1.*

COROLLA papilionaceous, twice the length of the calyx; STANDARD oblong, slightly notched at the extremity, and turning back; *fig. 2. WINGS* two, much shorter than the standard; *fig. 3. KEEL* very short, divided at the base. *fig. 4.*

STAMINA: ten FILAMENTS, one single, the rest united into one body; *fig. 5. 6. ANTHERÆ* small, and yellow.

PISTILLUM: GERME oblong, roundish; STYLE tapering, the length of the germen; STIGMA yellowish, forming a little head. *fig. 7.*

SEED-VESSEL: an oblong, round, jointed pod, *fig. 8;* terminating in a point and containing

SEEDS from two to four. *fig. 9.*

THE creeping or Dutch Clover may be considered as one of our most valuable British plants, the greatest part of the seed used in this country is imported from Holland, where it is cultivated on account of its seed, and hence it has acquired the name of Dutch Clover, as it is a plant which grows naturally wild in this country, on dry, gravelly, and indifferent soils, it is probable it might also be cultivated for the same purpose in many parts of Great Britain, where land and labour are cheap, and that to great advantage.

The quantity of Seed sold annually in this country is astonishingly great, Messrs. Gordon and Dermer who do not particularly deal in this article sell every year forty or fifty tons weight of it.

Those plants which have creeping roots or stalks have the advantage of most others in point of growth, and when a plant of this kind growing naturally in a barren soil, comes to have the advantage of cultivation, it flourishes amazingly, so does the Dutch Clover, a single seedling of which I have known in a garden to cover more ground than a yard square, in one summer.

Although this plant does not grow so tall as some others, yet the vast number of stalks, leaves, and blossoms which it throws out produces a great bottom in a pasture, and thereby stamp a particular value on it.

It is not a plant however which makes any great figure in the spring, but its chief excellence consists in its producing herbage in dry summers, late in the season, when most of the grasses are burnt up, it then covers the fields with a beautiful verdure, and affords plenty of food to the Cattle, or hay for a second crop.

There is an idea very prevalent among farmers, that ashes alone spread on land will produce this plant in abundance, they do not know, or will not believe, that the plant previously existed in the ground, and is only render'd larger and more conspicuous by the manure.

Of the *Trifolium repens* I have observed two remarkable varieties, viz. one with leaves of a deep purple colour, cultivated in gardens as an ornamental plant, the other proliferous, having small heads of leaves growing out of the flowers, this I found several years ago on the left-hand side of the canal, leading from Limehouse to Bromley, there are likewise several other varieties, which depend on the richness and poverty of soil.



Trifolium repens.





Medicago polymorpha.

MEDICAGO ARABICA. HEART MEDICK, or CLAVER.

MEDICAGO *Lin. Gen. Pl.* DIADELPHIA DECANDRIA: *Legumen compressum, cochleatum, Carina corollæ a vexillo deflectens.*

Raii Syn. Gen. 23. HERBÆ FLORE PAPILIONACEO SEU LEGUMINOSÆ.

MEDICAGO *polymorpha* leguminibus cochleatis, stipulis dentatis caule diffuso. *Lin. Syst. Vegetab. p. 577. Sp. pl. 1097.*

MEDICA foliis emarginatis, ferratis, racemis paucifloris, filiquis globosis echinatis. *Haller. hist. n. 383.*

MEDICAGO *polymorpha. Scopoli Fl. Carn. n. 942.*

TRIFOLIUM cochleatum folio cordato maculato. *Bauhin. pin. 329.*

TRIFOLIUM cordatum *Ger. emac. 1190. Park. 1115. Raii Syn. 333. Heart Trefoil or Claver. Hudson. Fl. Angl. ed. 2. p. 331.*

RADIX annua, fibrosa.

CAULES plures, pedales, et ultra, procumbentes, angulati, striati, purpurascens, pilosi, ramosi.

FOLIA terna, obcordata, mucronata, obsolete ferrata, lævia, maculâ purpurea in medio notata.

PETIOLI superne canaliculati, pilosi.

STIPULÆ binæ, semisagittatæ, ferratæ.

FLORES plerumque bini, pedicellati, pedunculis terebibus, pilosis, petiolis brevioribus; *Bractæa* minima, ad basin cujusvis pedicelli, et seta pilosa inter flosculos longitudine florum.

CALYX: PERIANTHIUM monophyllum, tubulosum, subcampanulatum, pilosum, semiquinquefidum, laciniis acuminatis, subæqualibus, purpurascens. *fig. 1.*

COROLLA papilionacea, flava; *Vexillum* subrotundum, emarginatum, reflexum, lineis saturate flavis ad basin notatum. *fig. 2. Alæ* duæ, parvæ, vexillo breviores, croceæ, apice paulo secedentes. *Carina* concava, obtusa, alis paulo longior.

STAMINA: FILAMENTA diadelpa, coalita fere ad apices, tubus sursum curvatus; ANTHERÆ minimæ, flavæ. *fig. 3. 4.*

PISTILLUM: GERMEN viride, oblongum, subtus ubi stylus incipit emarginatum, cito sese spirallyter contorquens, et superne spinulas agens; STYLUS subulatus, erectus; STIGMA terminale, minimum. *fig. 5. 6.*

PERICARPIUM: *Legumen* subrotundo-cylindraceum, utrinque truncatum, spinulosum, spirallyter contortum. *fig. 7.*

SEMEN majusculum, reniforme, flavescens. *fig. 8.*

ROOT annual and fibrous.

STALKS numerous, about a foot in length, or more, procumbent, angular, striated, purplish, hairy, and branched

LEAVES growing three together, inversely heart-shaped, terminated by a short point, faintly sawed, smooth, with a purple spot in the middle of each.

LEAF-STALKS above grooved and hairy.

STIPULÆ two, the shape of half an arrow, and serrated.

FLOWERS growing generally two together, standing on footstalks which are round, hairy, and shorter than the footstalks; *Bractæa* very small, at the base of each flower-stalk, and a hairy seta or bristle betwixt the flowers of the same length with the flowers.

CALYX: a PERIANTHIUM of one leaf, tubular, somewhat bell-shaped, hairy, divided half way down in five segments, which are pointed, nearly equal and purplish. *fig. 1.*

COROLLA papilionaceous, and yellow; *Standard* roundish, notched at the end, and turning back, marked at its base with lines of a deeper yellow colour. *fig. 2. Wings* two, small, shorter than the standard, saffron coloured, separating a little from one another at the tips. *Keel* hollow, blunt, a little longer than the wings. *fig.*

STAMINA: FILAMENTS uniting into two bodies almost to the tips, tube bending upward; ANTHERÆ very minute and yellow. *fig. 3. 4.*

PISTILLUM: GERMEN green, oblong, below where the style begins notched, soon spirally twisting itself, and from its upper part throwing out little spines; STYLE tapering, upright; STIGMA terminal, and very minute. *fig. 5. 6.*

SEED-VESSEL: a *Pod* of a roundish cylindrical shape, cut off at each end, spinous, and spirally twisted up. *fig. 7.*

SEED rather large, kidney-shaped, and yellowish. *fig. 8.*

The plant here figured is intended to represent the *Trifolium cochleatum folio cordato maculato* of BAUHINE and RAY and the *Medicago polymorpha var. arabica* of LINNÆUS; how far it is in itself a variety, how far LINNÆUS and some other authors are justified in making so many varieties of one species*, or how far others are right in dividing one genus into so many species especially MONSIEUR GERARD, it would ill become me to determine, this plant and this only of the present tribe as far as I have hitherto seen is common in the neighbourhood of London; future observation added to culture may perhaps enable me hereafter to speak more decidedly on the subject.

The present plant is subject to considerable variation in size as also with respect to the brightness of the spots on its leaves.

It flowers in May and June.

On the edges of Charlton Sand-pits it grows in very great plenty and is not uncommon on banks and the borders of fields in a variety of other places.

When it grows luxuriantly one is tempted to suppose that it wou'd afford good fodder for cattle, it seems at least to deserve a trial.

* *As the orbicularis, scutellata, tornata, turbinata, intertexta, arabica, coronata, ciliaris, hirsuta, rigidula, minima, muricata, nigra, laciniata. Linnæi Syst. Vegetab. p. 578.*



Hypericum

Androsæmum.

HYPERICUM ANDROSÆMUM. TUTSAN.

HYPERICUM *Lin. Gen. Pl.* POLYADELPHIA POLYANDRIA

Cal. 5. *partitus*, *Petala* 5. *Filamenta* multa, in 5 phalanges basi connata, *Capsula*.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM *Androsæmum* floribus trigynis, fructibus baccatis, caule fruticoso ancipiti. *Lin. Syst.*

Vegetab. p. 583. *Sp. Pl.* p. 1102.

ANDROSÆMUM maximum frutescens. *B. Pin.* 280.

ANDROSÆMUM vulgare. *Park.* 575.

CLYMENUM Italarum. *Ger. emac.* 548.

HYPERICUM maximum Androsæmum vulgare dictum. *Raii Syn.* Tutsan or Park-leaves.

Hudson Fl. Angl. ed. 2. p. 332.

Lightfoot Fl. Scot. p. 415.

RADIX perennis, crassa, lignosa, rubens, fibras longissimas emittens.	ROOT perennial, thick, woody, of a reddish colour, sending out very long fibres.
CAULES suffruticosi, ancipites, bipedales et ultra, ramosi, rubentes, glabri.	STALKS somewhat shrubby, slightly winged, two feet high and upward, branched, of a reddish colour and smooth.
FOLIA opposita, sessilia, ovata, integerrima, lævia, inferne pallidiora, venis plurimis parum exstantibus reticulata, per ætatem rubicunda, inferioribus plerumque minoribus.	LEAVES opposite, sessile, ovate, entire, smooth, paler on the under side, reticulated with numerous veins which project but little, becoming through age of a reddish or purple colour, the lowermost generally the least.
FLORES flavi, pro ratione plantæ parvi, in Cyma variè divisa dispositi.	FLOWERS of a yellowish colour, small for the size of the plant, disposed in a Cyma variously divided.
CALYX: PERIANTHIUM quinquepartitum, laciniis ovatis, obtusis, subnervosis, inæqualibus, erectis, demum reflexis.	CALYX: a PERIANTHIUM deeply divided into five segments, which are ovate, obtuse, somewhat rib'd, unequal, upright, finally turned back.
COROLLA: PETALA quinque, ovata, obtusa, subæqualia, calyce paulo longiora, patentia, concaviuscula, apicibus paululum inflexis, decidua	COROLLA: five PETALS, ovate, obtuse, nearly equal, a little longer than the calyx, spreading, somewhat hollow, the tips bending a little inward, deciduous.
STAMINA: FILAMENTA plurima, ultra quadraginta, corollâ longiora; ANTHERÆ parvæ, subrotundæ.	STAMINA: FILAMENTS numerous, more than forty, longer than the corolla; ANTHERÆ small and roundish
PISTILLUM: GERMEN subrotundum, nitidum, flavescens; STYLI tres, longitudine germinis, erecti; STIGMATA parva, rotundata.	PISTILLUM: GERMEN roundish, shining, yellowish; STYLES three, the length of the germen, upright; STIGMATA, small and roundish.
PERICARPIUM: CAPSULA ovato-rotundata, primo baccæformis, e flavo virescens, dein ruberrima, demum nigricans, exsucca, trilocularis, feminibus plurimis minimis referta	SEED-VESSEL; a CAPSULE of a roundish egg-shape, at first assuming the appearance of a berry of a yellowish green colour, afterwards of a bright red colour, lastly blackish, having three cavities which are filled with numerous small seeds.

The French call this plant *Toute saine*, *Allbeal*, (*vide Tourn. Hist. des Pl.*) whence as PARKINSON observes, we have evidently borrowed our English name of *Tutsan*. They appear to have been equally fond of attributing vulnerary qualities to plants as our countryman GERARD, but perhaps on no better grounds, the *Tutsan* and the *Allbeal* being now equally neglected. Its other name of *Park-leaves*, by which it is less frequently called, it has doubtless acquired from being commonly found in Parks.

We may remark of the *Androsæmum*, that neither HALLER, LINNÆUS, JACQUIN, SCOPOLI, or CÆDER enumerate it in their respective Flora's.

In many parts of *England* it is by no means an uncommon plant; it is chiefly found in or near Woods. About London all our *Hypericums* abound more than this, which I have met with in one wood only, viz. the *Oak of Honour Wood*, near *Peckham Rye*, adjoining *Norwood*. It flowers in July and August, and ripens its seed-vessels, which have much the appearance of berries in September.

It is not uncommon in Gardens,

HYPERICUM HIRSUTUM. HAIRY ST. JOHN'S WORT.

HYPERICUM *Lin. Gen. Pl.* POLYADELPHIA POLYANDRIA.

Cal. 5, partitus, *Petala* 5, *Filamenta* multa, in 5 phalanges basi connata. *Capfula*.

Raii Syn. HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM *hirsutum* floribus trigynis, calycibus ferrato-glandulosis, caule tereti erecto, foliis ovatis subpubescentibus. *Lin. Syst. Vegetab. Sp. Pl.* 1105. *Fl. Suec.* n. 682.

HYPERICUM foliis ovatis, per oram punctatis, calycibus lanceolatis, ferratis, globuligeris, *Haller. bist.* n. 1042.

HYPERICUM *hirsutum* *Scopoli Fl. Carniol.* p. 92. n. 945.

ANDROSÆMUM *hirsutum*, *Baubin. pin.* 280.

HYPERICUM *Androsæmum dictum.* *Baub. bist.* III. 382.

ANDROSÆMUM alterum *hirsutum.* *Col. ecphr.* 1. p. 75. t. 74.

ANDROSÆMUM *Afcyron dictum*, caule rotundo *hirsuto.* *Moris. bist.* 2. p. 971. f. 5. t. 6. f. 11.

HYPERICUM *villosum erectum*, caule rotundo. *Tournefort. Inst.* 255. *Raii Syn.* Tutân St. John's Wort.

Hudson Fl. Angl. ed. 2. p. 333. *Lightfoot Fl. Scot.* p. 419.

RADIX perennis, fibrosa, fibris fuscis, rigidis, sublig-nosis.

CAULIS sesquipedalis, ad tripedalem, erectus, solidus, rubicundus, teres, pubescens, plerumque simplex, ramosus etiam occurrit, rarius vero quam in hyperico perforato.

FOLIA alterne opposita, oblonga, obtusa, sessilia, utrinque villosula, margine minutim ciliata, septemnervia, punctis diaphanis minutissimis per totam superficiem adpersa.

RAMI: rudimenta rami constantes foliolis quatuor decussatis in axillis foliorum sæpius observantur, hæc vero aliquando omnino defunt, et nonnunquam in ramis producuntur.

FLORES flavi, terminales, in panicula, oblonga, subspicata.

CALYX: PERIANTHIUM quinquepartitum; laciniis lanceolatis, bifulcis, margine glandulosis, foliola etiam et gemmæ calyci subiecta glandulis nigris pedicellatis ornantur. *fig. 1.*

COROLLA: PETALA quinque, flava, oblongo-ovata, obtusa, patentia, striata. *fig. 2.*

STAMINA: FILAMENTA viginti, ad triginta, in tres phalanges obscure divisa, capillaria, recta, flava, corolla breviora; ANTHERÆ subrotundæ, didymæ, flavæ. *fig. 3.*

PISTILLUM: GERMEN subrotundum. STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia. *fig. 4.*

PERICARPIUM: CAPSULA oblonga, trilocularis, trilvalvis. *fig. 5. 6.*

SEMINA plurima, minima. *fig. 7.*

ROOT perennial, fibrous, the fibres brown, rigid, and somewhat woody.

STALK a foot and a half to three feet high, upright, solid, reddish, round, hairy, or downy, generally simple, but sometimes branched, though much less so than the common Saint John's Wort.

LEAVES alternately opposite, oblong, obtuse, sessile, hoary on each side, the edge finely ciliated, marked with seven ribs, and very minute transparent dots spread all over its surface.

BRANCHES: rudiments of branches consisting of four leaves forming a cross are generally observed in the axæ of the leaves, these however are sometimes wanting, and sometimes are drawn out into branches.

FLOWERS yellow, terminal, in an oblong panicle forming a kind of spike.

CALYX: a PERIANTHIUM divided into five segments; which are lanceolate, with two grooves, and glandular on the edge, the small leaves and buds below the calyx are also ornamented with black glands placed on footstalks. *fig. 1.*

COROLLA: five PETALS of a yellow colour and oblong oval shape, blunt, spreading and striated. *fig. 2.*

STAMINA: from twenty to thirty FILAMENTS obscurely divided into three bundles or fasciculi, very fine, straight, yellow and shorter than the Corolla; Antheræ roundish, double, yellow. *fig. 3.*

PISTILLUM: GERMEN roundish: STYLES three, simple, spreading, the length of the stamina. STIGMATA simple. *fig. 4.*

SEED-VESSEL an oblong capsule of three cavities and three valves. *fig. 5. 6.*

SEEDS numerous and very minute. *fig. 7.*

The more ancient Botanists paying but little regard to the nicety of distinction, overlooked this species of *Hypericum*; COLUMNA possessing greater discernment than his predecessors appears first to have figured and described it; by superficial observers it may easily be mistaken for the common St. John's Wort, but differs from it in being a taller plant, having a stalk perfectly round and hoary, and the edges of the calyx beset with black glands, it is also more apt to grow in woods and coppices, though it is frequently met with in hedges.

It flowers in July and August.

It grows plentifully in a field just beyond Dulwich College, also about the Oak of Honour Wood near Peckham, and most of the Woods near Town.



Hypericum hirsutum.

HYPERICUM HUMIFUSUM. TRAILING ST. JOHN'S WORT.

HYPERICUM *Linnaei. Gen. Pl. POLYADELPHIA POLYANDRIA.*

Cal. 5. partitus. Petala 5, Filamenta multa, in 5. phalanges basi connata. Capsula.

Raii. Syn. Gen. 24 HERBÆ PENTAPETALÆ VASCULIFERÆ.

HYPERICUM humifusum floribus trigynis axillaribus, solitariis, caulibus ancipitibus prostratis filiformibus, foliis glabris. *Lin. Syst. Vegetab. p. 332. Sp. Pl. 1105. Fl. Suecic. 681.*

HYPERICUM caule prostrato, foliis ovatis, calycibus ferratis punctatis. *Haller. bist. p. 5. n. 1039.*

HYPERICUM minus fupinum vel fupinum glabrum. *C. Baub. pin. 279.*

HYPERICUM minus fupinum. *Park. 572.*

HYPERICUM fupinum glabrum. *Ger. emac. 541. Raii. Syn. p. 342. the least trailing St. Johns Wort.*

Hudson. Fl. Angl. ed. 2. p. 332.

Lightfoot. Fl. Scot. p. 418.

RADIX perennis, lutescens, fibrosa.

CAULES plures ex eadem radice, spithamæi, procumbentes, teretes, vix manifeste ancipites, læves, rubentes, summitate ramosi.

FOLIA opposita, oblongo ovata, obtusa, glabra, integerrima, margine punctis nigris notata.

CALYX: PERIANTHIUM quinquepartitum, laciniis magnis, inæqualibus, ovato oblongis, margine reflexis et glandulis ferrato punctatis, mucrone rufo terminatis. *fig. 1.*

COROLLA: PETALA quinque, oblonga, flava, obtusa, calyce paulo longiora, margine glandulis punctata. *fig. 2.*

STAMINA: FILAMENTA raro ultra viginti, in tres phalanges distincte divisa; ANTHERÆ minimæ, flavæ. *fig. 3.*

PISTILLUM: GERMEN subrotundum, STYLI tres, simplices, distantes, longitudine staminum; STIGMATA simplicia. *fig. 4.*

PERICARPIUM: CAPSULA oblongo ovata, membranacea, trilocularis, immatura ruberrima.

SEMINA plurima, minima.

ROOT perennial, of a yellowish colour and fibrous.

STALKS several from the same root, about half a foot in length, procumbent, round, scarce perceptibly two edged, smooth, of a reddish colour and branched at top.

LEAVES opposite, oblong, oval, obtuse, smooth, entire, dotted on the edge with black.

CALYX a PERIANTHIUM divided into five segments, which are large, unequal, oval, oblong, the edge turned back and sawed as it were with black glands, terminating in a red point. *f. 1.*

COROLLA: five oblong yellow PETALS, blunt at the end, a little longer than the calyx, and dotted on the edge with glands. *fig. 2.*

STAMINA: FILAMENTS seldom more than twenty, distinctly divided into three bodies; ANTHERÆ very small and yellow. *fig. 3.*

PISTILLUM: GERMEN roundish; STYLES three, simple, spreading, the length of the stamina; STIGMATA simple. *fig. 4.*

SEED-VESSEL an oblong oval Capsule, membranous, of three cavities, of a very bright red colour before it is ripe.

SEEDS numerous and very minute.

THIS is the least of all our *Hypericums*, but scarcely inferior to any of them in beauty and delicacy.

It grows frequent enough, in gravelly pastures, in fields that have long lain fallow, and likewise on heaths, especially where the soil is moist and clayey.

It flowers in June, July, and August.

SCOPOLI without any good grounds, suspects it to be a monstrous variety of the *Hypericum perforatum*, from which it differs almost as much as it is possible for one species to differ from another.



Hypericum humifusum

PICRIS ECHIOIDES. OX-TONGUE.

PICRIS *Linnaei. Gen. Pl.* SYNGENESIA POLYGAMIA ÆQUALIS.

Recept. nudum. Cal. calyculatus. Pappus plumosus. Sem. transversim fulcata.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO; NATURA PLENO LACTESCENTES.

PICRIS *echioides* perianthiis exterioribus pentaphyllis, interioribus aristato majoribus. *Linnaei. Syst. Vegetab. p. 593. Spec. Plant. 1114.*

HIERACIUM *echioides* capitulis cardui benedicti. *Baubin. Pin. 128.*

BUGLOSSUM *luteum. Gerard. emac. 798.*

LINGUA BOVIS. *Parkinson. 800. Raii Syn. p. 196, Lang de bœuf.*

Hudson. Fl. Angl. ed. 2. p. 342.

RADIX annua, ramosa.

CAULIS bi aut tripedalis, ramosissimus, ramis divaricatis, erectus, rubens, striatus, spinosus, spinis plurimis, horizontalibus, apice hamatis.

FOLIA amplexicaulia, oblonga, acuta, tuberculosa, spinosa.

PEDUNCULI fulcati, versus apicem sensim incrassati.

CALYX communis duplex, exterior maximus, pentaphyllus, Involucro similis, foliolis cordatis, spinosis, interior imbricatus, squamæ exteriores paucae, minimæ, inæquales, interiores erectæ, æquales, aristatæ, *fig. 1, 2*, carinatæ, carinâ cum aristâ hispidis, setæ inferiores unculis quatuor apice instructis, *fig. 3*, superiores spinosæ, simplices, longiores.

COROLLA composita, *Corollulæ* hermaphroditæ, tubulosæ, flavæ; Tubus tenuis, pilosus, *fig. 4*, albidus; Limbus quinquedentatus, dentibus inæqualibus.

STAMINA: FILAMENTA quinque, capillaria, brevissima: ANTHERÆ in tubum tenuem, flavum, coalitæ.

PISTILLUM: GERMEN oblongum, læve, album: STYLUS filiformis, antheris longior: STIGMATA duo, reflexa.

SEMEN oblongum, rufum, transversim minutissime striatum.

PAPPUS stipitatus, pilosus, *fig. 5.*

ROOT annual, and branched.

STALK two or three feet high, very much branched, (the branches divaricating,) upright, of a reddish purple colour, striated, and spinous, the spines numerous, horizontal, and hooked at the extremity.

LEAVES embracing the stalk, oblong, pointed, covered with tubercles and spines.

FLOWER-STALKS grooved, and gradually enlarged towards the extremity.

CALYX common to many florets, and double; the exterior one large, and composed of five heart-shaped prickly leaves, which resemble an Involucrum; the inner one imbricated; the outermost scales few, small, and uneven; the innermost upright, equal, terminating with an arista, *fig. 1, 2*, keeled, the keel together with the arista hispid, the little spines on the lower part terminating in four small hooks, *fig. 3*, those on the upper part simple and longer.

COROLLA compound; the *Florets* hermaphrodite, and yellow; the Tube slender, hairy, *fig. 4*, and whitish; the Limb terminated by five unequal teeth.

STAMINA: five FILAMENTS, very fine and short: ANTHERÆ united in a slender, yellow tube.

PISTILLUM: GERMEN oblong, smooth, and white: STYLE thread-shaped, and longer than the antheræ: STIGMATA two, turning back.

SEED oblong, of a reddish orange colour, very finely striated transversely.

DOWN standing on a foot-stalk, and hairy, *fig. 5.*

THE only use to which we find this singular plant to have been applied, is as a pot-herb. *Raii. Hist. p. 233.* to which purpose its appearance is certainly no recommendation.

It grows not unfrequently on banks, on the edges of fields, and in woods that have been cut down; and flowers in June and July.



Hieris echinoides

Sussendrup



Hypochaeris radicata

Sanson del. Sculp.

HYPOCHÆRIS RADICATA. LONG-ROOTED HAWKWEED.

HYPOCHÆRIS *Lin. Gen. Pl.* SYNG. POLYGAMIA ÆQUALIS. *Recept.* paleaceum. *Cal.* subimbricatus.
Pappus plumosus.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOCHÆRIS *radicata* foliis runcinatis obtusis scabris, caule ramofo nudo lævi, pedunculis squa-
mofis. *Lin. Sp. Pl.* p. 1140. *Fl. Suecic.* n. 709.

HYPOCHÆRIS foliis femipinnatis hirsutis, caule nudo, brachiato. *Haller. Hist.* p. 3. n. 3.

ACHYROPHORUS *radicatus.* *Scopoli. Fl. Carn.* n. 987.

HIERACIUM *Dentis leonis folio obtuso majus.* *Bauhin. pin.* 127.

HIERACIUM *longius radicatum.* *Lob. ic.* 238. *Gerard. emac.* 298. *Parkinson.* 790. *Raii. Syn.* long
rooted Hawkweed.

Hudson. Fl. Angl. ed. 2.

Oeder. Fl. Dan. ic. 150.

Lightfoot Fl. Scot. p. 443.

RADIX perennis, crassitie digiti minimi, alte in terram
descendens, albida, plerumque simplex, lac-
tescens.

FOLIA *radicalia*, supra terram expansa, planiuscula,
oblonga, obtusa, sinuato-dentata, dentibus
subobtusis, hirsuta, pilis simplicibus, erectis,
e punctis prominulis prodeuntibus, *caulina*
nulla.

CAULES sæpe plures ex eadem radice, pedales aut
bipedales, suberecti, nudi, squamis solum bre-
vibus, ovato-acutis, ciliatis, ad exortum ra-
morum infructu, glaberrimi, glauci, substriati,
tenaces, solidi, ramofo.

PEDUNCULI longi, squamis paucis obfiti, versus
apicem paululum incrassati.

CALYX communis imbricatus, squamis ovatis, acu-
tis, glabris, apice rufis, carinâ ciliatâ pilis
rigidulis. *fig.* 1.

COROLLA *Composita*, imbricata; Corollulis herma-
phroditis, æqualibus, numerosis, *Propria* mo-
nopetala, ligulata, truncata, quinque-dentata,
tubo apice piloso. *fig.* 2. 3.

STAMINA: FILAMENTA quinque, capillaria; AN-
THERÆ in tubum coalitæ, flavæ.

PISTILLUM: GERMEN ovatum; STYLUS filiformis,
longitudine Staminum; *Stigmata* duo, reflexa.

SEMEN oblongum, rufum, striatum. *fig.* 5,

PAPPUS stipitatus, plumosus.

RECEPTACULUM paleaceum, paleæ longæ, nitidæ,
membranaceæ, concavæ. *fig.* 4.

ROOT perennial, the thicknefs of the little finger,
running deeply into the earth, generally fim-
ple, of a whitish colour, and milky within.

LEAVES next the root expanded on the ground, flat-
tish, oblong, obtuse, sinuated and toothed
(the teeth bluntish,) hirsute, the hairs simple,
upright, and proceeding from little promi-
nent points; stalk leaves none.

STALKS often feveral from the same root, one or two
feet high, nearly upright, naked, instead of
leaves having only short, oval, pointed scales,
edged with hairs at the fitting on of the bran-
ches, very smooth, glaucous, somewhat stri-
ated, tough, solid, and branched.

FLOWER-STALKS long, beset with a few scales,
towards the top a little thickend.

CALYX common to many florets, composed of scales
which are of an oval shape, pointed, smooth,
reddish at top, the keel edged with stiffish
hairs. *fig.* 1.

COROLLA Compound, the florets laying one over
another, hermaphrodite Florets equal and
numerous; *each Floret* monopetalous, tubular
at bottom and spreading at top, cut off at the
extremity and terminating in five teeth, the
tube hairy at top. *fig.* 2. 3.

STAMINA: five FILAMENTS, very fine; ANTHERÆ
uniting in a tube, of a yellow colour.

PISTILLUM: GERMEN oval; STYLE thread-shaped,
the length of the Stamina; STIGMATA two,
turning back.

SEED oblong, reddish and finely grooved. *fig.* 5.

DOWN standing on a foot-stalk and feathery.

RECEPTACLE chaffy, chaff long, shining, membra-
nous, and hollow. *fig.* 4.

THIS species of *Hypochaeris* receives its name of *radicata* from the length of its root, by which it is parti-
cularly distinguished from the *Leontodon autumnale* LINN: or *Hieracium radice succisa* of BAUHIN, in its fructi-
fication it agrees with the *Hypochaeris glabra* already figured, size excepted, the same membranous *Paleæ*
so observable in that plant serve equally to characterize the genus in this species, which is altogether as com-
mon with us as the other is scarce.

It grows on dry Banks, also on Heaths, in Meadows and Pastures, and in the early part of the Summer
its blossoms render it a very conspicuous plant in those situations.

In barren soils particularly on Heaths it is much smaller than the plant here figured, but its hairiness and
the size of its blossoms will always prevent its being mistaken for the *Hypochaeris glabra*.



Hypochaeris glabra

Linnaeus Sculp.

HYPOCHÆRIS GLABRA. SMALL-FLOWERED HAWKWEED.

HYPOCHÆRIS *Linnaei Gen. Pl. SYNGENESIA POLYGAMIA ÆQUALIS.*

Receptaculum paleaceum: *Cal.* subimbricatus. *Pappus* plumosus.

Raii Syn. Gen. 6. HERBÆ FLORE COMPOSITO NATURA PLENO LACTESCENTES.

HYPOCHÆRIS *glabra*, calycibus oblongis imbricatis, caule ramofo nudo, foliis dentato-finuatis. *Linn. Syst. Vegetab. p. 601. Sp. Pl. p. 1140.*

HYPOCHÆRIS foliis glabris semipinnatis. *Haller. Catal. Plant. Gotting. p. 421. Hist. Plant. addend. ad tom. 1. v. 3. p. 180.*

HIERACIUM minus dentis leonis folio oblongo glabro. *Baubin. pin. 127.*

HYPOCHÆRIS chondrillo folio, parvo flore. *Vaillant. act. 1721. p. 214.*

HIERACIUM parvum in arenosis nascens, feminum pappis dense radiatis. *Raii. Syn. 166.*

HIERACIUM minimum. *Col. ecph. I. 27. ic.*

Hudson. Fl. Angl. p. 303. ed. 2. p. 347.

Oeder. Fl. Dan. Ic. 424.

Lightfoot. Fl. Scot. p. 442.

RADIX annua, crassitie pennæ coracis, fusiformis, paucis fibrillis instructa, pallide fusca.

FOLIA *radicalia* plurima, supra terram expansa, longitudine minimi digiti, et ejusdem circiter latitudinis, sinuato-dentata, ad apicem paulo latiora, glabriuscula, margine præsertim pilis hispidulis ciliata, lactescentia; *caulina* pauca, minima.

CAULES plerumque plures, spithamæi, suberecti, in duos vel tres ramos divisi, glauci, teretes, subnudi.

PEDUNCULI squamosi, sub floribus paululum inflati.

FLORES *minimi*, lutei.

CALYX communis, primum cylindraceus, peractâ florescentiâ oblongo conicus, *magnus*; squamæ læves, imbricatum positæ, ovato-lanceolatae, inæquales, apicibus rubris.

COROLLA *composita*, imbricata, uniformis; *corollulis* hermaphroditis, æqualibus, numerosis; propria monopetala, tubus infundibuliformis, apice *hispidulus*, *fig. 3*; limbus planus, quinquedentatus, *fig. 2*.

STAMINA: FILAMENTA quinque, in tubum coalita, *fig. 4*.

PISTILLUM: GERMEN infra corollam propriam, *fig. 6*: STYLUS filiformis, longitudine staminum: STIGMATA duo reflexa, *fig. 5*.

RECEPTACULUM *paleaceum*, paleæ concavæ, lanceolatae, acuminatae, nitidæ, longitudine pappi, *deciduæ*, *fig. 1*.

SEMINA sublinearia, basi acuminata, castanea, *fig. 7*, lente vix lineata, scabra, *fig. 8*, in *radio sessilia*, in *disco petiolata*.

PAPPUS inæqualis, plumosus, rigidulus, *fig. 9*.

ROOT annual, about the thickness of a crow quill, tapering, furnished with few fibres, of a pale brown colour.

LEAVES *of the root* numerous, spread on the ground, about the length of the little finger, and of the same breadth, sinuated, or deeply indented, a little broadest at top, smooth, but not perfectly so, the edges particularly, being thinly beset with stiffish hairs; *those on the stalk* few, and very minute.

STALKS usually several, about seven inches high, nearly upright, divided into two or three branches, round, almost naked, and of a glaucous colour.

FLOWER-STALKS scaly, a little thickened under the flower.

FLOWERS *very small*, and yellow.

CALYX common to many flowers, at first cylindrical, when the flowering is over, becoming of an oblong conical shape, and *large*; the *scales* smooth, placed one over another, of an oval pointed shape, uneven, the tips red.

COROLLA *compound*, the florets placed one over the other, of an uniform shape, hermaphrodite, equal, and numerous; each floret monopetalous; the tube funnel-shaped, with a *few stiffish hairs at top*, *fig. 3*; the limb flat, with five teeth, *fig. 2*.

STAMINA: five FILAMENTS united into a tube, *fig. 4*.

PISTILLUM: GERMEN placed beneath each single floret, *fig. 6*: STYLE thread-shaped, the length of the stamina: STIGMATA two, bending back, *fig. 5*.

RECEPTACLE chaffy, chaff hollow, narrow, pointed, shining, the length of the down, and *deciduous*, *fig. 1*.

SEEDS nearly linear, tapering to a point at bottom, of a chestnut colour, *fig. 7*, viewed with a magnifier, finely grooved, and rough, *fig. 8*, *those in the circumference sessile*, *those in the center standing on foot-stalks*.

DOWN uneven, feathered, and stiffish, *fig. 9*.

In the third edition of RAY's *Synopsis*, there is an accurate account given of this plant, which he informs us, he omitted in his *Hist. Plant.* not being certain at that period, whether it was not a variety of some other plant of the same family. It must be admitted, that many of the plants of this class, very much resemble one another at first sight, whence the student is apt to consider them as a difficult tribe: but however strongly the objection of a *similarity of habit* may be urged against the *Hypochaeris glabra*, whoever has once seen it in blossom, will never mistake it for any other; the flowers being remarkably small for a plant of this kind, not exceeding the size of a silver threepence, while the heads containing the seeds, are altogether as large in proportion to the size of the plant. This similarity of habit, may be one cause why this plant is not oftener found; but a more particular one, perhaps, is the short time of the flowers expansion, as it does not open till about nine of the clock in the morning, and shuts again about one or two in the afternoon.

HALLER's account of the seeds of this plant is very just: those in the center have foot-stalks, and those in the circumference none; hence this plant unites those genera, whose characters are drawn from this circumstance.

I have found this species of *Hypochaeris* in tolerable abundance on *Black-beath*, particularly under Greenwich Park Wall, on the South-side. By RAY it is mentioned to grow, on the authority of DOODY, in the fields between Kingston and Richmond; by Mr. HUDSON, about Bristol; near Norwich, by Mr. PITCHFORD; and in Scotland, though rarely, by Mr. LIGHTFOOT.

It delights in a gravelly or sandy soil, and exposed situation; and flowers in June.

CARDUUS MARIANUS. MILK THISTLE.

CARDUUS *Linnaei. Gen. Pl.* SYNGENESIA POLYGAMIA ÆQUALIS.

Calyx ovatus, imbricatus squamis spinosis. *Receptaculum* pilosum.

Raii Syn. Gen. 18. HERBÆ FLORE EX FLOSCULIS FISTULARIBUS COMPOSITO, SIVE CAPITATÆ.

CARDUUS *marianus* foliis amplexicaulibus hastato pinnatifidis spinosis; calycibus aphyllis; spinis canaliculatis duplicato spinosis. *Linn. Syst. Vegetab. p.* 605. *Sp. Pl.* 1153.

SILYBUM nervis foliorum albis. *Haller. Hist. n.* 181.

CIRSIUM maculatum. *Scopoli Fl. Carniol. p.* 130.

CARDUUS albis maculis notatus vulgaris. *Baubin. Pin. p.* 281.

CARDUUS *mariaæ. Gerard. emac.* 1150.

CARDUUS *mariaæ vulgaris. Parkinson.* 976.

Raii Synop. p. 195. Common Milk Thistle, or Ladies Thistle.

Hudson. Fl. Angl. ed. 2. p. 353.

Lightfoot. Fl. Scot. p. 454.

RADIX annua.

FOLIA radicalia supra terram expansa, pedalia, bipedalia et ultra, pinnatifido sinuata, nitida, margine spinosa, superne venis albis reticulatis picta, subinde vero immaculata, *Caulina* amplexicaulia, patentia, suprema recurvata, basi cauli adpressa.

CAULIS tripedalis, ad orgyalem, ramosus, inferne crassitie digiti intermedi, tomentosus, sulcatus, superne nudus, striatus.

FLORES solitarii, magni, purpurei.

CALYX: Folia quæ calycem componunt varia sunt, inferiora nempe rotundata, spinis ciliata; intermedia utrinque ad basin spinis ciliata, acuminata, patentia, rigida, superne canaliculata, spina flavescente terminata; superiora et interiora lanceolata, inermia, apice purpurea, marginibus fissis, *fig.* 1, 2, 3.

COROLLULÆ infundibuliformes, tubo tenuissimo, curvato, albo, *fig.* 4; *Limbo* erecto, quinquefido, basi subgloboso, nitido, intus melleum liquorem fundente, laciniis linearibus, æqualibus.

STAMINA: FILAMENTA quinque, capillaria, brevissima: ANTHERÆ purpureæ, in tubum tenuissimum coalitæ, *fig.* 6.

PISTILLUM: GERMEN ovatum, compressum, album: STYLUS filiformis, staminibus longior, prope apicem circulo villorum coronato, dein utrinque sulcato et apice bifido, *fig.* 7.

SEMINA plurima, ovata, subangulata, nitida, nigricantia, pappo obliquo, rigidulo, simplici, albedo coronata.

RECEPTACULUM pilosum.

ROOT annual.

LEAVES next the root, expanded on the ground, from one to two feet or more in length, sinuated, and pinnatifid, shining, the edge spinous, on the upper side painted with white veins, which form a kind of net work, but sometimes wholly green; *leaves on the stalk* partly surrounding the stem, spreading, the uppermost leaves bent back, the base of each pressed close to the stalk.

STALK from three to six feet high, branched, at bottom about the thickness of the middle finger, downy, grooved, at top naked, and finely channeled.

FLOWERS one on each stalk, large, and purple.

CALYX. The leaves which compose the calyx are various; the lowermost are of a roundish shape, and edged with spines; the middle ones edged with spines towards the bottom, and running out to a point, spreading, rigid, hollow on the upper side, and terminating in a yellowish spine; the upper and innermost leaves lanceolate, without spines, purple at top, and notched on the edges, *fig.* 1, 2, 3.

FLORETS funnel shaped; tube very slender, bent, and white, *fig.* 4; *Limb* erect, divided into five segments, at bottom somewhat globular, and secreting a honey liquor within, the segments linear, and equal in length.

STAMINA: five FILAMENTS, very short, and fine: ANTHERÆ purple, united into a very slender tube, *fig.* 6.

PISTILLUM: GERMEN oval, flattened, and white: STYLE thread-shaped, longer than the stamina, crowned near the top with a circle of short hairs, from thence grooved on each side, and bifid at top, *fig.* 7.

SEEDS numerous, oval, somewhat angular, shining, of a blackish colour, crowned with a stiffish, simple, white down, growing obliquely.

RECEPTACLE hairy.

THE beautiful milk white veins which form an irregular net work on the upper side of the leaves of this species of *Thistle*, joined to its grandeur, render it an object which strikes the attention of most: and where these veins exist, they serve also very well to characterize the plant: the leaves however are frequently wholly green; in which case, it becomes necessary to have recourse to some of its other characters, than which none are more conspicuous than the strong spines which defend the blossom.

The seeds are large, and contain a portion of oil, whence they have sometimes been made use of in emulsions: but they more often serve as food for the Goldfinch, and other granivorous birds.

It is a very common plant on our banks, by the sides of roads, and among rubbish, and flowers in May and June. The variety with green leaves, I have observed on the banks near *Kennington Turnpike*.

Did it not occupy so much space, its beauty would recommend it as a garden plant.



Carduus marianus

Lamson Sculp.

BIDENS CERNUA. NODDING WATER-HEMP - AGRIMONY.

BIDENS *Lin. Gen. Pl.* SYNGENESIA POLYGAMIA ÆQUALIS. *Recept.* paleaceum. *Pappus* aristis erectis scabris. *Cal.* imbricatus. *Cor.* rarius flosculo uno alterne radiante instructus.

Raii. Syn. Gen. 8. HERBÆ FLORE COMPOSITO DISCOIDE SEMINIBUS PAPPO DESTITUTIS CORYMBIFERÆ DICTÆ.

BIDENS cernua foliis lanceolatis amplexicaulibus floribus cernuis feminibus erectis. *Lin. Syst. Vegetab.* p. 610.

BIDENS foliis sessilibus ferratis, floribus nutantibus circumvallatis. *Haller. Hist.* 120.

BIDENS cernua *Scopoli Fl. Carniol.* p. 176. n. 2.

CANNABINA aquatica folio non diviso. *Baub. pin.* 321.

VERBESINA pulchriore flore luteo. *I. B. II.* 1074.

EUPATORIÆ Cannabinæ fœminæ varietas altera *Ger. emac.* 711.

EUPATORIUM aquaticum folio integro. *Parkins.* 596.

VERBESINA minima. *Dillen. Cat. Giss.* 167. et *App.* 66. *Raii. Syn. ed 3. t. 7. f. 2.*

Raii. Syn. p. 187. Water-Hemp-Agrimony with an undivided leaf.

Hudson. Fl. Angl. ed. 2. p. 356.

Lightfoot. Fl. Scot. p. 463.

RADIX annua, fibrosa, fibris plurimis, majusculis, alte descendentibus.

CAULIS pedalis, bipedalis, et ultra, erectus, ramosus, hispidulus, purpurascens, rubro punctatus, inferne teres, superne sulcato-striatus, rami oppositi, suberecti.

FOLIA opposita, indivisa, modice connata, ovato-lanceolata, patentia, ferrata, utrinque lævia.

PEDUNCULI striati.

FLORES e luteo-virescentes, demum cernui, plerumque radiati.

CALYX communis, foliaceus, foliolis circiter septem, lineari-lanceolatis, serrulatis, nervosis, reflexis, corollâ longioribus.

COROLLA: PETALA exteriora decem circiter, oblongo-ovata, acutiuscula, nitida, e flavo-virescentia, apice inflexa, lineis parallelis nigricantibus picta, exempta margine; FLOSCULI in disco numerosi, æquales, hermaphroditi, infundibuliformes, flavi; *Tubus* cylindraceus, longitudine limbi seu paulo longior, *Limbus* campanulatus, quinque-dentatus, dentibus sub-reflexis. *fig.* 1. 2.

STAMINA: FILAMENTA quinque, capillaria; ANTHERÆ nigricantes, in tubum laxum coactæ. *fig.* 3.

PISTILLUM: GERMEN angulatum, subconicum, albidum, apice truncatum, superne e quatuor angulis, aristis quatuor longitudine fere flosculi instructum. *fig.* 6.

SEMEN olivaceo-nigrum, obverse conicum, tetragonum, angulis aristisque retrorsum scabro hamosis. *fig.* 7.

RECEPTACULUM paleaceum Paleis structuræ petalorum, lanceolatis, longitudine flosculorum. *fig.* 5.

ROOT annual, and fibrous, the fibres numerous, large, branched, running deep.

STALK from one to two feet high or more, upright, branched, somewhat hispid, purplish, dotted with red, below round, above striated, the branches opposite and nearly upright.

LEAVES opposite, undivided, moderately connate, ovato-lanceolate, spreading, ferrated, and smooth on both sides.

FLOWER-STALKS striated.

FLOWERS of a yellowish green colour, finally drooping, generally radiated.

CALYX common to all the florets leafy, consisting of about seven leaves, which are of a shape betwixt linear and lanceolate, finely sawed at the edge, rib'd, turning back and longer than the corolla.

COROLLA: the exterior PETALS about ten in number, of an oblong oval shape, somewhat pointed, and bending in at the top, of a yellowish green colour, shining and marked with blackish parallel lines except the margin, the FLOWERS in the center numerous, æqual, hermaphrodite, funnel shaped and of a yellow colour; the *Tube* cylindrical the length of the limb or a little longer, the *Limb* bell-shaped, having five teeth which turn somewhat back. *fig.* 1. 2.

STAMINA: five FILAMENTS, very fine; ANTHERÆ blackish, forming a loose tube. *fig.* 3.

PISTILLUM: GERMEN angular, somewhat conical, whitish, cut off at top, furnished above with four beards or awns proceeding from the four angles almost the length of the flower and beset with little hooks bending backward. *fig.* 6.

SEED of a dark olive colour, inversely conical, four cornered, the corners and beards beset with little hooks bending backward. *fig.* 7.

RECEPTACLE chaffy or beset with numerous lanceolate leaves having the structure of the petals and being as long as the florets. *fig.* 5.

THE Genus *Bidens* of LINNÆUS is chiefly characteriz'd by the structure of its seeds, which according to its name shou'd be furnished with two teeth or awns, to neither of our English species does this name however well accord, as the one has generally three and the other four; the awns are furnish'd with small sharp hooks, (a curious object for the microscope) by means of which they often stick to ones cloaths, and Mr. LIGHTFOOT mentions that they have been known sometimes to destroy the *Cyprinus auratus* or Gold Fish by adhering to their Gills and Jaws.

We have two species of *Bidens* common in this country viz the *tripartita* and *cernua*, the *tripartita* is common on the edge of almost every pond, the *cernua* delights rather to grow in the water itself, in the ditches about St. Georges Fields, in the pond adjoining Hornsey Wood, and in similar situations about London it is very frequently met with, it flowers in the month of September, a month later than the *tripartita*.

Like all other plants it is subject to vary, being sometimes found without its exterior petals, and sometimes in very dry seasons when the Sun has exhaled the water from the pond it has grown in, it has been found so dwarfish as not to exceed two or three inches in height, a plant of this kind is figured on the plate, *fig.* 8, DILLENIUS finding it in this state, described and figured it is in his edition of *RAYS Synopsis*, as a distinct species and LINNÆUS probably relying on his authority adopted it as such in his *Species plantarum* but HALLER who had seen the Plant very justly considers it as only a variety and Mr. LIGHTFOOT concurs with him in opinion, Mr. HUDSON with his usual inaccuracy in the second edition of his *Flora anglica* gives it as a variety of the *tripartita*.

The flowers of this species have a strong and not a very disagreeable smell, hence they promise to possess some medicinal powers, it is said by LINNÆUS, to dye yellow, but not so powerfully as the *tripartita*.



Bidens cernua.

INULA DYSENTERICA. COMMON FLEABANE.

INULA *Lin. Gen. Pl.* SYNGENESIA POLYG. SUPERFL.

Recept. nudum. *Pappus* simplex. *Antheræ* basi in duas fetas desinentes.

Raii. Syn. Gen. 7. HERBÆ FLORE COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES, FLORE DISCOIDE.

INULA *dysenterica* foliis amplexicaulibus cordato-oblongis, caule villosa paniculato, squamis calycinis fetaceis. *Lin. Syst. Vegetab.* p. 637. *Lin. Spec. pl.* p. 1237. *Fl. Suecic.* n. 557.

ASTER foliis amplexicaulibus, undulatis, subtus tomentosis. *Haller. hist.* n. 79.

ASTER *Dysentericus.* *Scopoli. Fl. Carn.* n. 1079.

CONYZA media asteris flore luteo vel tertia diofcoridis. *Bauh, pin.* 265.

CONYZA media Matthioli, flore magno luteo, humidis locis proveniens. *J. B.* II. 1050.

CONYZA media *Ger. emac.* 482. HERBA DYSENTERICA. *Cat. Altdorf. Raii. Syn.* p. 174. Middle Fleabane. *Hudson. Fl. Angl.* p. 368. *Oeder. Fl. Dan.* t. 410.

RADIX perennis, repens, albida, crassitie pennæ anserinæ, majusculis fibris donata.

CAULIS pedalis ad bipedalem, erectus, ramosissimus, teres, firmus, solidus, lanuginosus.

FOLIA alterna, conferta, patentia, amplexicaulia, oblonga, obscure ferrata, inferne tomentosa, superne subhirsuta, obscure viridia.

RAMI plurimi, cauli similes, erecti, senioribus altius procectis.

FLORES flavi, procul conspicui, numerosi, subcorymbosi.

CALYX: communis, imbricatus, foliolis laxis, sublinearibus, hirsutis.

COROLLA composita, radiata, *Corollulæ* hermaphroditæ, æquales, numerosissimæ in disco. *Femineæ* ligulatæ, numerosæ, confertæ in radio. *Propria* Hermaphroditis infundibuliformis, limbo quinquefido, erectiusculo, *fig. 7.* *Femineæ* ligulata, sublinearis, tridentata. *fig. 1.*

STAMINA Hermaphroditis: FILAMENTA quinque, filiformia, brevissima. ANTHERA cylindrica, composita ex minoribus quinque linearibus, coalitis: singulis inferne desinentibus in fetas duas rectas longitudine filamentorum.

PISTILLUM Hermaphroditis: GERMEN oblongum, hispidulum; STYLUS filiformis, longitudine flaminis; STIGMA bifidum, reflexum *fig. 8.* *Femineis:* GERMEN ut in Hermaphrodite; *fig. 3.* STYLUS longitudine tubi, STIGMA bifidum. *fig. 2.*

PAPPUS pilosus. *fig. 4. 5. 6.*

ROOT perennial, creeping. whitish, the thickness of a goose quill, furnished with largish fibres.

STALK from one to two feet high, upright, very much branched, round, firm, solid, with a woolly surface.

LEAVES alternate, set thickly together, spreading, embracing the stalk, oblong, obscurely serrated, underneath woolly, above somewhat hirsute, of a dull green colour.

BRANCHES numerous, like the stalk, upright, the latest growing to the greatest height.

FLOWERS yellow, conspicuous at a distance, numerous, and forming a kind of corymbus.

CALYX: common to many florets, the leaves placed one over another, somewhat linear and hirsute.

COROLLA compound and radiate, hermaphrodite *Florets* equal and exceedingly numerous in the center. *Female* ligulate, numerous, growing close together, in the circumference. *Each* Hermaphrodite floret funnel shaped, the limb divided into five segments which are nearly upright, *fig. 7.* *Female* ligulate, somewhat linear, terminating in three teeth. *fig. 1.*

STAMINA in the Hermaphrodite flower; five FILAMENTS thread-shaped and short. ANTHERÆ forming a cylindrical tube, composed of five smaller linear ones united, each terminating below in two strait setæ or threads the length of the filaments.

PISTILLUM of the Hermaphrodite florets: GERMEN oblong and somewhat hispid; STYLE thread-shaped, the length of the stamina; STIGMA bifid and turning back. *fig. 8.* of the female *Florets;* GERMEN as in the Hermaphrodite ones. *fig. 3.* STYLE the length of the tube; STIGMA bifid.

DOWN hairy. *fig. 4. 5. 6.*

At the close of the year this plant contributes not a little to enliven and beautify the sides of our moist ditches, to the Farmer it however affords no very pleasing spectacle when it overruns as it frequently does large tracts of Land and gives it a barren uncultivated appearance.

LINNÆUS in his *Flora Suecica* mentions his having been informed by General *Keit* that the Russians in their expedition against the Persians were cured of the Bloody Flux by means of this plant, whence it has probably obtained its name of *dysenterica*, had it possessed any efficacy in this disease superior to the medicines in general use it would most probably have been retain'd in the present practice. RAY has observed that the leaves when bruised smelt like Soap, RUTTY informs us that the juice is saltish and warms the mouth a little, that the decoction is somewhat acrid in the throat, at the same time astringent and turning green with vitriol of Iron, that the infusion is somewhat astringent, very bitter in the throat, and turning black with vitriol of Iron.

Cattle in general dislike it.



INULA PULICARIA. SMALL FLEABANE.

INULA *Lin. Gen. Plant.* SYNGENESIA POLYGAMIA SUPERFLUA, *Recept.* nudum. *Pappus* simplex. *Antheræ* basi in setas duas definentes.

Raii. Syn. Gen. 7. HERBÆ FLORE COMPOSITO, SEMINE PAPPOSO NON LACTESCENTES, FLORE DISCOIDE.

INULA *Pulicaria* foliis amplexicaulibus undulatis, caule prostrato, floribus subglobosis. *Lin. Sp. Pl.* p. 1238.

ASTER foliis amplexicaulibus, undulatis, hirsutis, radiis brevissimis. *Haller. Hist. n.* 80.

ASTER *Pulicarius.* *Scopoli Fl. Carn. n.* 1080.

CONYZA minor flore globoso. *Baubin pin.* 266.

CONYZA minima. *Gerard emac.* 482. *Raii. Syn. p.* 174. small Fleabane.
Hudson. Fl. Angl. p. 369.
Oeder. Fl. Dan. icon. 613.

RADIX annua, fibrosa, albida, articulata, plerumque curvata.	ROOT annual, fibrous, whitish, jointed, generally crooked.
CAULIS spithamæus, raro ultra pedalem, nobiscum plerumque erectus, ramosissimus, teres, purpurascens, pubescens, subflexuosus; Rami alterni, cauli similes.	STALK from seven inches to a foot in height, seldom more, with us generally upright, very much branched, round, purplish, downy, somewhat crooked; Branches alternate, and like the stalk.
FOLIA alterna, oblongo-lanceolata, amplexicaulia, hirsutula, undulata, tortuosa.	LEAVES alternate, oblong, and lanceolate, embracing the stalk, slightly hairy, waved at the edges and twisted.
FLORES parvi, numerosi, hæmisphærici, lutei, summatibus ramulorum insidentes, pedunculati; post nati supra primos eminentes.	FLOWERS small, numerous, hemispherical and yellow, sitting on the tops of the branches and having foot stalks, the last blown standing considerably above the others.
CALYX communis imbricatus, squamæ numerosæ, inæquales, sublineares, erectæ, tomentosæ.	CALYX common to many florets, scales lying one over another, numerous, almost linear, upright, equal and woolly.
COROLLA composita: Corollule Hermaphroditæ æquales, numerosissimæ in disco, limbo quinquefido, erecto, extus minutissime glanduloso, fig. 5, Femineæ ligulatæ, numerosæ, confertæ in radio; carinâ ad lentem scabriusculâ, limbo brevissimo, plerumque tridentato. fig. 1.	COROLLA compound, Hermaphrodite Florets equal, exceedingly numerous in the center, the limb divided into five upright segments, and externally very minutely glandular, fig. 5. Female Florets in the circumference flat at the extremity, numerous, close together, the keel or midrib underneath a little rough, the limb very short, usually terminating in three teeth. fig. 1.
STAMINA: FILAMENTA quinque, capillaria; AN- THERÆ flavæ, longitudine corollæ, singulis fetis duabus tenuissimis ad basin instructis, fig. 9, 10, 11.	STAMINA: five FILAMENTS, very fine; ANTHERÆ yellow, the length of the corolla, each furnished at bottom with two slender setæ or bristles. fig. 9, 10, 11.
PISTILLUM: GERMEN Hermaphroditis et Feminæis oblongum, teres, album, pilis rigidulis subappressis hirsutum. fig. 2, 4. STYLUS corollâ longior; STIGMA bifidum, lacinis reflexis. fig. 3, 6.	PISTILLUM: GERMEN both in the Hermaphrodite and Female Florets oblong, round, white, hirsute with stiffish hairs which are somewhat press'd to it; fig. 2, 4, STYLE longer than the corolla; STIGMA bifid, the segments turning back. fig. 3, 6.
SEMEN oblongum, nigricans, hispidulum, teres; pappo simplici, rigidulo, fragili, longitudine feminis coronatum. fig. 8.	SEED oblong, blackish, round and a little hispid, crown'd with a simple, stiffish, brittle down, the length of the seed. fig. 8.
RECEPTACULUM nudum, punctis prominulis scabrum. fig. 7.	RECEPTACLE naked, roughish from little prominent points. fig. 7.

LINNÆUS in his *Genera Plantarum* informs us that the *Inula* is principally characterized by having two small *Setæ* or *Bristles* proceeding from the base of each *Anthera*, and that it is by this circumstance in an especial manner distinguished from the Genus *Aster*, yet notwithstanding this, both *Haller* and *Scopoli* have thought proper to join it with that genus; although a peculiar character, it might perhaps be considered by them as too minute to found a Genus on, in this species it requires a good eye and some small dexterity to discover them, yet they are sufficiently visible; independent of them however, there is on the face of the two genera such an evident dissimilarity that a student would never expect to find them arranged together

This species is not so common as the *dyssenterica*, nor is it like that a perennial.—It generally grows in places overflowed in the winter, on the borders of Ponds particularly in a stiffish soil and flowers in September.

*Inula Pulcarica*

Sausenholz

VIOLA PALUSTRIS. BOG VIOLET.

VIOLA *Lin. Gen. Pl.* SYNGENESIA MONOGAMIA.

Cal. 5-phyllus. *Cor.* 5-petala, irregularis, postice cornuta. *Caps.* supera 3-valvis, 1-locularis.

Raii Syn. Gen. 24. HERBÆ PENTAPETALÆ VASCULIFERÆ.

VIOLA acaulis, foliis reniformibus. *Lin. Syst. Vegetab.* p. 668. *Sp. Pl.* p. 1324. *Fl. Suecic.* n. 786. *Haller. hist. n.* 560.

VIOLA palustris rotundifolia glabra. *Moris. hist. 2. p.* 475. *f.* 5. *t.* 35. *f.* 5. *Plot. Ox.* 144. *t.* 9. *f.* 2. *Raii Syn.* p. 364.

Hudson Fl. Angl. ed. 2. p. 379.

Lightfoot Fl. Scot. p. 506.

Oeder Fl. Dan. t. 83.

RADIX	perennis, repens, albida, dentata, hinc inde gemmis albis instructa, plurimis fibrillis ramosis capillata.	ROOT	perennial, creeping, whitish, toothed, here and there furnished with white buds, and abundantly supplied with branched fibres.
STIPULÆ	radicales plurimæ, ovato-acutæ, ferrulatæ.	STIPULÆ	next the root numerous, ovate, pointed, and slightly sawed.
PETIOLI	glabri, femicylindracei, interne concavi, ad lentem visi punctis minutissimis purpureis notati.	LEAF-STALKS	smooth, femicylindrical, internally hollow, view'd with a glass appearing to be finely dotted with purple.
FOLIA	subreniformia, tenera, nitida, crenata, venosa, subtus haud infrequenter purpurascens.	LEAVES	somewhat kidney-shaped, tender, shining, notched, veiny, on the under side frequently purplish.
PEDUNCULI	radicales, uniflori, petiolis duplo longiores, subtetragonis.	FLOWER-STALKS	springing from the root, twice the length of the leaf-stalks, somewhat quadrangular.
BRACTEÆ	duo, lanceolatæ, oppositæ, ad basin ferrulatæ, infra medium pedunculi positæ.	FLORAL-LEAVES	two, lanceolate, opposite, finely sawed at the base, and placed below the middle of the flower-stalk.
FLORES	parvi, pallide purpurei.	FLOWERS	small, of a pale purple colour.
CALYX	PERIANTHIUM parvum, petalis duobus superioribus fere occultum, pentaphyllum, foliolis oblongis, obtusis, superioribus apice recurvis. <i>fig. 1.</i>	CALYX	a PERIANTHIUM, small and almost hid by the two uppermost petals, composed of five leaves, which are oblong, obtuse, the uppermost turn'd back at top. <i>fig. 1.</i>
COROLLA	PETALA quinque, pallide purpurea, duobus superioribus deorsum flexis, longitudine fere calcaris nectarii, petala lateralia subrotunda, stria unica simplici notata, basi barbata, <i>fig. 2.</i> infima venis purpureis ramosis pulchre picta, in calcar breve obtusum postice excurrente. <i>fig. 3.</i>	COROLLA	FIVE PETALS, of a pale purple colour, the two uppermost bent back, almost the length of the spur of the nectary, the side petals somewhat twisted, marked with one simple streak, and bearded at the bottom, the lowermost beautifully painted with branched veins of a purple or reddish colour, running out backward into a short blunt spur. <i>fig. 2. 3.</i>
STAMINA	FILAMENTA quinque brevissima; ANTHERÆ biloculares, in tubum vix coalescentes, membrana aurantiaca terminatæ. <i>fig. 4. aut.</i>	STAMINA	FIVE FILAMENTS very short, ANTHERÆ bilocular, scarcely united in a tube, terminated by an orange colour'd membrane. <i>fig. 4.</i> magnified.
PISTILLUM	GERMEN subovatum; STYLUS basi curvatus, superne incrassatus, antheris longior; STIGMA nudo oculo bifidum apparet; <i>fig. 5.</i> armato sicut ad. <i>fig. 6.</i>	PISTILLUM	GERMEN somewhat ovate; STYLE crooked at bottom, thicken'd at top, longer than the antheræ; STIGMA to the naked eye bifid. <i>fig. 4.</i> when magnified appearing as at <i>fig. 6.</i>
PERICARPIUM	CAPSULA oblonga, trigona, tri-valvis.	SEED-VESSEL	an oblong, three-corner'd CAPSULE of three valves.
SEMINA	plurima, subrotunda.	SEEDS	numerous and roundish.

IT is in Bogs only that we find the *Viola palustris*, the least showy of all our English Violets, and in such situations it generally abounds, on the boggy part of *Shirley Common* near *Croydon*, it may be found in flower in April and May.

It is distinguished from the other species by the peculiarity of its place of growth, the greater roundness of its leaves, the paleness of its flowers, and the extraordinary form of its stigma, *vid. pl. fig. 6.* In its œconomy it resembles the *Viola odorata*, *birta*, &c. producing ripe seeds without perfect blossoms, and that in a greater quantity and for a longer continuance than any of the others.

A Violet with red striped blossoms is mentioned by *PARKINSON*, under the name of *Viola rubra striata Eboracensis* which is considered by *Mr. RAY* and later writers, as only a variety of the present plant.

*Viola**palustris.*

ORCHIS MORIO. MEADOW ORCHIS.

ORCHIS *Linn. Gen. Pl.* GYNANDRIA DIANDRIA. *Nectarium* corniforme pone florem.

Raii Syn. Gen. 26. HERBÆ RADICE BULBOSA PRÆDITÆ.

ORCHIS *Morio* bulbis indivisis, nectarii labio quadrifido crenulato: cornu obtuso adscendente, petalis obtusis conniventibus. *Lin. Syst. Vegetab.* p. 674. *Sp. Pl.* p. 1333. *Fl. Suec.* n. 794.

ORCHIS radicibus subrotundis, petalis galeæ lineatis, labello trifido crenato, medio segmento emarginato. *Haller. bist. n.* 1281. t. 33.

ORCHIS *Morio*. *Scopoli Fl. Carniol.* n. 1110.

ORCHIS morio femina. *Baubin. pin.* 82. *Parkins.* 1347.

CYNOSORCHIS morio femina. *Ger. emac.* 208. *Raii Syn.* 377. The Female Fool-stones.

Hudson, Fl. Angl. ed. 2. p. 383. *Lightfoot Fl. Scot.* p. 514. *Oeder. Fl. Dan. Tab.* 253

RADIX: *Bulbi* duo, subrotundi, magnitudine nucis avellanæ aut etiam moschatae, superne ut in plerisque hujus generis fibris majusculis patentibus instructi, odore subhircino.

SCAPUS spithamæus, ad pedalem et ultra, erectus, foliosus.

FOLIA amplexicaulia, lanceolata, lineata, superne nitida, inferne subargentea, ima reflexa, et quodammodo intorta.

FLORES pauciores, sex five octo, raro ultra duodecim, purpurei, laxè dispositi.

BRACTÆA longitudine fere germinis, purpurascens, incumbens.

COROLLA: PETALA quinque, omnibus in galeam conniventibus, quorum duo exteriora presertim lineis quinque parallelis, viridibus notantur.

LABELLUM amplum, purpureum, medio albidum, punctatum, trilobum, lobis lateralibus deflexis, medio breviorè emarginato, omnibus ferrulatis. *Calcar* longitudine fere germinis, subemarginatum, sursum tendens.

STAMINA: FILAMENTA duo; ANTHERÆ virides, clavatae, bilamellatae. *fig. 2. 3. 5.*

ROOT: two roundish *Bulbs* of the size of a hazel nut or even of a nutmeg, above as in most of the plants of this tribe furnished with largish spreading fibres, smelling strong and rank.

STALK from six or seven inches to a foot or more in height, upright and leafy.

LEAVES embracing the stalk, lanceolate, marked with lines, shining on the upper side, underneath silvery, the bottom ones for the most part turning back and variously contorted.

FLOWERS few in number, from six to eight, seldom more than twelve, of a purple colour, sitting loosely on the stalk.

BRACTÆA or Floral leaf, almost the length of the germen, purplish and incumbent.

COROLLA: five PETALS, all of which close together and form the helmet, of these the two outermost are strikingly marked with green parallel lines.

LIP large, purple, whitish in the middle and dotted, having three lobes, of which the two side ones turn downward, the middle one shortest with a notch in it, all of them finely fawed. *Spur* nearly the length of the germen, slightly notched at top and tending upward.

STAMINA: two FILAMENTS; ANTHERÆ green, club-shaped, splitting into two lamellæ. *fig. 2. 3. 5.*

Most of the plants of the Orchis tribe as already has been observed have bulbous roots which are yearly renewed, they do not however encrease in that abundant manner which many other bulbous-rooted plants are known to do; as yet I have not heard of any one that has raised them from seed, nor can I boast a fact of that kind myself, yet frequent observation almost confirms me in the opinion that they must be propagated from seed, if this be not admitted, how shall we account for so many young plants being found together as are frequently observed? I have myself seen from twenty to thirty young plants of the Bee Orchis growing within a foot of each other, and it is well-known they seldom or never encrease by the root; accurate and repeated observation in natural history is capable of producing much information, and will it is hoped ere long satisfactorily elucidate this doubtful subject.

Some writers on the Materia Medica have pronounc'd this to be the true plant which produces the oriental Salep, while others suppose it to be some other species, there is one circumstance which makes it impossible that this species should produce all the Salep as many of the roots in that drug appear palmated like those of the *Orchis Maculata*, whereas had they been the produce of the *Orchis Morio* they would all have appeared round, it would therefore appear most probable that the Salep is formed from a number of the different species mixed together; there seems to be no propriety in confining it to this species alone, the *mascula*, the *maculata*, the *bifolia*, and some others have as large or larger roots than this, and their quality appears to be the same.

The *Orchis Morio* grows in meadows that are moderately dry, such as the Cowslip is usually found in, and sometimes they are so numerous as to empurple the spot they grow on.

It assumes all the changes of colour from a deep purple to a white, indeed there is no Orchis more variable in this respect, but in all its varieties it retains more or less strongly the green lines on its side petals which obviously distinguish it from all our other Orchis's.

It flowers in May and June.



Orchis Morio

Sanson Sculp

Ophrys ovata



S. Annoni Sculp.

OPHRYS OVATA. TWAYBLADE.

OPHRYS *Lin. Gen. Pl. GYNANDRIA DIANDRIA.*

Nectarium subcarinatum.

Raii Syn. Gen. 29. HERBÆ RADICE BULBOSA PRÆDITÆ.

OPHRYS *ovata* bulbo fibroso, caule bifolio, foliis ovatis, nectarii labio, bifido. *Lin. Syst. Vegetab. p. 667. Sp. Pl. 1342. Fl. Suec. n. 808.*

EPIPACTIS foliis binis ovatis, labello bifido. *Haller. hist. 1291. t. 37.*

OPHRYS *ovata*, *Baubin. Pin. 87. Ger. emac. 402.*

BIFOLIUM sylvestre vulgare *Parkins. 504. Raii Syn. 385. Common Twayblade.*

Fl. Dan. t. 137. Hudson Fl. Angl. ed. 2. p. 388. Lightfoot Fl. Scot. p. 523.

RADIX perennis, fibrosa, fibris plurimis, teretibus, cylindricis, contortis.

SCAPUS pedalis et ultra, solidus, teres, villosus, subviscidus, foliolis paucis perbrevibus, alternis, acuminatis, vaginantibus instructus.

FOLIA bina, prope terram, inferiore basi sua superioris basin ambiente, ovata, mucronata, quinquenervia.

FLORES herbacei, spicati, laxe et distincte infidentes.

SPICA prælonga, angusta.

Fig. 1. ad 12. exhibent partes fructificationis sicut per lentem apparent.

Fig. 1. ad 6. Flos antice visus.

Fig. 1. 4. 5. PETALA exteriora latiora, 2. 3. interiora angustiora.

Fig. 6. Labellum NECTARII bifidum, in situ naturali sæpius inflexum.

Fig. 7. Squama superior, fig. 10. Squama inferior, (sustentaculum Halleri) inter quas theca staminum quasi in forcipe continetur.

Fig. 12. Theca staminum, cum staminibus inclusis.

Fig. 8. Theca staminum, demissis staminibus, fig. 9.

Fig. 15. STAMINA cum ANTHERIS bilamellofis, flavis, seorsim exhibitis.

Fig. 11. Stigma.

Fig. 15. PERICARPIUM nat. magnitud.

ROOT perennial, fibrous, fibres numerous, round, cylindrical, matted together.

STALK a foot or more in height, solid, round, villos, slightly viscid, and furnished with very short, alternate, pointed sheathing leaves.

LEAVES growing in pairs, near the ground, the lower one by its base furrounding the base of the upper one, ovate, pointed, with five ribs.

FLOWERS of a greenish colour, growing in a spike, fitting loosely and distinctly.

SPIKE very long and narrow.

Fig. 1. to 12. exhibit the parts of the fructification as they appear through a magnifier.

Fig. 1. to 6. a flower seen in front.

Fig. 1. 4. 5. the outer broadest PETALS, 2. 3. the inner and more narrow ones.

Fig. 6. the Lip of the NECTARY, which in its natural situation is generally bent inward.

Fig. 7. the superior Squama, fig. 10. the inferior Squama (the sustentaculum of Haller) between which the case containing the stamina is held as in a pair of forceps.

Fig. 12. the Case of the stamina, with the stamina enclosed.

Fig. 8. the Case of the stamina, the stamina having fallen out, fig. 9.

Fig. 15. the STAMINA with the ANTHERÆ composed of two lamellæ of a yellow colour shewn by themselves.

Fig. 11. the Stigma.

Fig. 15. SEED-VESSEL of its natural size.

To render the characters of this genus, which are very difficult of investigation, easy to the Botanic Student, they are represented in a magnified state, and particularly referred to.

It will be seen on comparing, how very different they are from those of the Orchis.

This species of Ophrys is the most common of the whole genus, and may be found in most of the woods about London, particularly such as have a moist soil, as about Shooter's-hill, and sometimes it is found in Meadows and on Heaths.

A variety with three leaves is now and then met with.

It flowers in May and June.

TYPHA MAJOR. GREATER CATSTAIL.

TYPHA *Linnaei* Gen. Plant. MONOECIA TRIANDRIA.

Masc. Amentum cylindricum. Cal. obsoletus, 3 phyllus,
Cor. o. FEM. Amentum cylindricum, infra masculos. Cal.
capillo villoso. Cor. o. Sem. 1. infidens pappo capillari.

Raii Syn. HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ FLORE IMPERFECTO SEU STAMINEO.

TYPHA *latifolia* foliis subeniformibus, spica mascula femineaque approximatis. *Lin. Syst. Vegetab.*
p. 702. *Sp. pl.* 1377.

TYPHA clava unica. *Haller. hist. n.* 1305.

TYPHA *latifolia*. *Scopoli Fl. Carniol.* p. 214.

TYPHA palustris major. *Bauhin.* p. 20.

TYPHA palustris maxima. *Parkinson,* 1204.

TYPHA *Ger. emac.* 46. *Raii Syn.* p. 436. Great Catstail or Reed-mace. *Hudson. Fl. Angl. ed. 2.* p. 400.
Lightfoot. Fl. Scot. 538.

RADIX perennis, repens, crassitie pollicis, articulata, spongiosa, radiculis, fibrillosis, albidis instructa, furculi albidii, teneri, in mucronem rigidam abeuntes, more tritici canini.

CULMUS tripedalis ad sexpedalem, simplex, erectus, foliosus, teres, lævis.

FOLIA alterna, erecta, tortuosa, basi subeniformia, carnosæ, superne plana, glauca, unciam fere lata, bi aut tripedalia, longissimâ vaginâ caulalem involventia.

SPATHÆ duæ, deciduæ, una ad spicæ masculæ basin, altera ad ejus medium.

FLORES masculi numerosissimi in Amento erecto, culmum terminante.

CALYX, nullus.

COROLLA, nulla.

STAMINA: FILAMENTUM antequam antheræ pollinem dimittunt, brevissimum, sustinens Antheram unam ad quatuor, demisso polline pendulum, et antheris longius; ANTHERÆ oblongæ, flavæ, quadrifurcata, glandulâ virecente terminatæ. *fig. 1. 2. 3. 4.*

FLORES feminei numerosissimi, in amento, masculino subiecto et contiguo.

PISTILLUM: GERME ovatum, minimum, pedunculo brevi infidens; STYLUS superne incrassatus; STIGMA nigrum.

SEMEN minimum, pedunculatum, aristatum, pedunculo papposo. *fig. 5.*

RECEPTACULUM amenti masculi pilosum.

ROOT perennial, creeping, the thickness of one's thumb, jointed, spongy, furnished with small fibrous roots of a whitish colour, the young shoots white, tender, terminating in a sharp hard point, like that of the common couch grass.

STALK from three to six feet high, simple, upright, leafy, round and smooth.

LEAVES alternate, upright, twisted, at bottom sword shaped and fleshy, at top flat, and of a blueish colour, about an inch in breadth and two or three feet in length, inclosing the stalk in a very long sheath.

SHEATHS two, deciduous, one placed at the bottom of the male spike, the other at the middle.

FLOWERS of the male very numerous, in an upright Catkin, terminating the stalk.

CALYX wanting.

COROLLA wanting.

STAMINA: the FILAMENT before the shedding of the pollen is very short, sustaining from one to four Antheræ, the pollen being shed, they hang down and become longer than the antheræ; ANTHERÆ oblong, yellow, with four grooves, and terminated by a greenish gland. *fig. 1. 2. 3. 4.*

FLOWERS of the female extremely numerous, in a catkin placed under and contiguous to the male catkin.

PISTILLUM: GERME oval, very minute, sitting on a short footstalk; STYLE thickened above; STIGMA black.

SEED very small, sitting on a footstalk, and terminated by an arista, the footstalk downy, *fig. 5.*

RECEPTACLE of the male-catkin hairy.

THE appearance of the *Typha Major*, when its spike is nearly ripe, is sufficiently striking to engage the attention even of the most incurious; it is not therefore to be wondered at, that Gentlemen, who are fond of Plants, should introduce it on the edges of their ponds, or that Painters should make it a conspicuous Plant in their representations of water; the Gentleman should however be apprized, that it has a creeping root, which encreases very much, soon choaks up a small piece of water, and overpowers other aquatics; thus difficult to keep within proper bounds, the most eligible mode of cultivating it is found to be in some border of the garden, where, if the soil be moist, it will flourish and produce spikes more abundantly than in the water.

The



Typha major



The quantity of impregnating dust contained in the male spike is exceedingly great, though proportioned indeed to the astonishing number of seeds in the female spike below; if these seeds are endowed with a vegetative power, (and that they are not I cannot assert from experiment) Nature will appear to have been unusually solicitous in the preservation of this Plant; but it often happens, as elsewhere has been observed, that many of those plants which encrease very much by their roots seldom produce perfect seed, as in the Moneywort, Butterbur, Water Violet, &c. here indeed the seed appears to come to its greatest perfection; they are, it is true, exceedingly minute, but this is no argument against their growth, as the seeds of the Ferns, which are infinitely smaller, are known to vegetate, and so are those of the Mosses, which are yet smaller; for, whatever some Botanists may assert to the contrary, the fine powder contained in their capsules, is as much seed as that contained in the capsules of the Ferns.

To ascertain the fact relative to the Typha, and to learn whether it encreases in any considerable degree from the seed, I propose sticking round some pond where it is not known to grow, several spikes with the seeds just beginning to blow off, and shall relate the effects of this experiment under the *Sparganium*, or Burreed.

The parts of fructification in this plant being very minute, are with difficulty investigated. Linnæus, who examined and described them without the assistance of a magnifier, is therefore excusable, if he has not been so minutely accurate in his description of them, as he is in most others.

The Calyx which he describes does not appear to be the Calyx, but rather some of the hairs proceeding from the receptacle, and which indeed appear more evidently to be so, from the hairy appearance of the receptacle when the stamina are dropt off; on one Filament are supported one, two, three, or four Antheræ, and that indiscriminately, so that there does not appear to be any great propriety in placing it in the order Triandria, it would be much less puzzling, and perhaps more agreeable to the system, to place it in the order Polyandria, there being many stamina, and all of them united to one receptacle.

The uses to which this plant are applied are but few.

The Roots are said to be eaten as a salad. *Haller. hist. ex. aust. Gledit.*

The downy seeds serve for stuffing pillows. *Haller. hist.*

Coopers use the leaves to fasten the hoops round their casks. *Lin. ex aust. Ruppri.*

According to HALLER, cattle eat the leaves which are suspected to be poisonous by SCHREBER.

It grows in ponds, ditches, and by the sides of rivers in many places about London, and flowers in July.

TYPHA MINOR. SMALLER CATSTAIL.

TYPHA *Linnei Gen. Pl. MONOECIA TRIANDRIA.*

MASC. Amentum cylindricum. *Cal. obsoletus, 3*
phyllus Cor. 6. FEM. Amentum cylindricum, infra
mafculos. Cal. capillo villos. Cor. 6. Sem. 1. infi-
dens pappo capillari.

Raii Syn. HERRÆ GRAMNIFOLIÆ NON CULMIFERÆ FLORE IMPERFECTO SEU STAMINEO.

TYPHA *angustifolia* foliis femicylindricis, spica mascula femineaque remotis. *Lin. Syst. vegetab. p. 702.*
Sp. pl. 1377.

TYPHA clava mascula a feminina remota. *Haller. hist. 1306.*

TYPHA *angustifolia.* *Scopoli. Fl. Carniol. p. p. 214.*

TYPHA *palustris minor.* *Bauhin pin. p. 20.*

TYPHA *minor Parkinson, 1204. Raii Syn. 436.*

Hudson. Fl. Angl. ed. 2. p. 400.

THE Typha Minor is a much scarcer plant about London than the Major, from which it differs specifically in having much narrower leaves and slenderer spikes, the male spike being also distant from the female about an inch; in the structure of its parts and its general œconomy it resembles the other.

I have observed it growing near Batefsea, where it is now destroyed; also on the middle of Woolwich Common, where the Botanist may probably find it a hundred years hence. It flowers at the same time as the Major.

CAREX PENDULA. PENDULOUS CAREX.

CAREX *Lin. Gen. Pl.* MONOECIA TRIANDRIA.

MASC. 1 phyllus. *Cor.* o. FEM. Amentum imbricatum. *Cal.* 1 phyllus. *Cor.* o. *Nectarium* inflatum, 3 dentatum. Germen triquetrum, intra nectarium.

Raii. Syn. Gen. 28 HERBÆ GRAMINIFOLIÆ NON CULMIFERÆ IMPERFECTO SEU STAMINEO.

CAREX spicis femininis pendulis longissimis, capsulis mucronatis ovatis. *Haller. hist.* 1396.

CAREX *pendula*, spicis subseffilibus pendulis, mascula erecta, femineis cylindricis longissimis, capsulis subrotundis acuminatis. *Hudson. Fl. Angl. ed. 2 p.* 411.

GRAMEN spica pendula longiore et angustiore *B. pin. 6. Pr. 13. J. B. 11.* 497.

GRAMEN cyperoides spica pendula longiore. *Parkins. 1267. Raii. Syn. p.* 420. Many-spiked Cyperus-grafs with long pendulous heads.

RADIX perennis, non vero repens.

CULMUS tripedalis, ad orgyalem in solo lætiori etiam accedit, triqueter, levis, superne striatus, foliosus.

FOLIA femunciam lata, viridia absque ullâ glaucedine, oris nervisque subasperis, minute ferrulatis, minus vero quam in multis aliis hujusce generis.

SPICÆ: omnes pendulæ, suprema e floribus masculis omnino composita, crassâ, basi tenuior, fecunda et tertia femineæ apice incrassatæ, ubi androgynæ, inferiores femineæ, lineares, longissimæ.

Flores masculi.

SQUAMÆ ovato-lanceolatæ, acuminatæ, e fusco purpurescentes, concavæ, trinerves. *fig. 1.*

STAMINA: FILAMENTA tria, capillaria, demisso poline longitudine squamarum; ANTHERÆ lineares, quadrifidatæ, flavæ. *fig. 2. 3. 4.*

Flores feminei.

SQUAMÆ ut in masculo. *fig. 5.*

NECTARIUM inflatum, ovato oblongum, glabrum, collo contracto. *fig. 6.*

PISTILLUM: GERMEN triquetrum, intra Nectarium; STYLUS brevissimus; STIGMATA tria, filiformia, pubescentia. *fig. 7. 8.*

SEMEN unicum, ovato acutum, triquetrum.

ROOT perennial, but not creeping.

STALK three feet high, in a rich soil growing even to the height of six feet, three cornered, smooth, at top striated, leafy.

LEAVES half an inch broad, green without any glaucous appearance, somewhat rough from being finely sawed, but much less so than many others of this genus.

SPIKES: all of them pendulous, the uppermost composed entirely of male flowers, thick, but slender at its base, the second and third female, thick at top, with a mixture of male and female flowers, the lower ones female, linear, and very long.

Flowers of the male.

SCALES narrow-oval, running out to a long point, of a brownish purple colour, hollow, with three ribs. *fig. 1.*

STAMINA: three FILAMENTS very fine, on the shedding of the pollen becoming as long as the scales; ANTHERÆ linear with four grooves, and of a yellow colour. *fig. 2. 3. 4.*

Flowers of the female.

SCALES as in the male. *fig. 5.*

NECTARY inflated, of an oval oblong shape, smooth, the neck contracted. *fig. 6.*

PISTILLUM: GERMEN three cornered, within the Nectary; STYLE very short; STIGMATA three, thread-shaped, and downy. *fig. 7. 8.*

SEED single, oval pointed, and three cornered.

We have here given for the first, a figure and description of the *Carex pendula*, one of a numerous tribe of plants, distinguished not less by the singularity of their fructification, than the difficulty which attends an investigation of their several species, from this difficulty the present plant may however claim a total exemption, for in whatever situation it is found, its long, pendulous, female spikes at once distinguish it, these when young are very slender, as the seeds ripen they become much thicker and cylindrical.

This elegant species is found in great abundance in the moist hedges about *Hamstead* and *Highbgate*, flowering in May and ripening its seeds in June.

It is not applied so far as our knowledge at present extends to any particular purposes.

*Carex pendula*



Hydrocharis Morsus ranae

Sansons Sculp.

HYDROCHARIS MORSUS RANÆ. FROG-BIT.

HYDROCHARIS *Linnæi*. *Gen. Pl.* DIOECIA ENNEANDRIA.

MASC. *Spatha* 2 phylla. *Cal.* 3 fidus. *Cor.* 3 petala. *Filam.* 3 interiora stylifera. FÆM. *Cal.* 3 fidus. *Cor.* 3 petala. *Styli* 6. *Caps.* 6 locularis, polysperma infera.

HYDROCHARIS. *Linnæi. Syst. Vegetab.* p. 746. *Spec. Pl.* 1466. *Fl. Suecic.* n. 914.

HYDROCHARIS. *Haller. hist.* 4. 1068.

NYMPHÆA alba minima. *Bauh. p.* 193.

MORSUS RANÆ *Parkinson.* 1252.

MORSUS RANÆ *Gerard. emac.* 818.

STRATIOTES folio afari, femine rotundo *Raii. Syn.* p. 290. The least white Water Lilly or Frog-bit.
Hudson. Fl. Angl. ed 2. p. 436.
Lightfoot. Fl. Scot. p. 622.

RADIX: Flagellis in longum extensis facile multiplicatur hæc planta, nutrimentum hauriens per radículas albas, fibrillosas, in limum profunde descendentes.

FOLIA sex, five octo, natantia, rotundato-reniformia, carnosâ, glabra, integerrima, subpellucida, venis paucis circularibus, plurimis transversis notata, subtus rubella.

PETIOLI spithamæi, crassi, pellucidi, lineis plurimis decussati.

SPATHÆ in utraque sexu plurimæ, radicales, ovatæ, pellucidæ, in masculis etiam circa medium pedunculi enascuntur binæ, flosculos tenellos, inapertos quasi in vesicâ continentes.

PEDUNCULI longitudine petiolorum, erecti; masculi triflori aut quadriflori; feminei uniflori, crassiores.

Mas.

CALYX: PERIANTHIUM triphyllum, foliolis ovatis, concavis, flavescentibus, membranaceis, patentibus. *fig. 1.*

COROLLA: PETALA tria, alba, plana, rugosula, tenerrima, basi flava.

STAMINA: FILAMENTA novem, in tres ordines disposita, quorum intermedius ordo stipitem subulatum e basi sua interiore, styli ad instar exferit, et in centro collocat. Duo reliqui ordines basi connectuntur, ut internum et externum cohæreat filamentum; ANTHERÆ sublineares, biloculares, flavæ. *fig. 2. 3. 4. 5. 6. 7.*

PISTILLUM: GERMINIS rudimentum in centro. *f. 8.*

Femina.

CALYX: PERIANTHIUM ut in mare, superum.

COROLLA ut in mare.

PISTILLUM: GERMEN subovatum, inferum: STYLI sex, longitudine calycis, patentes, compressi, bifido-canaliculati; STIGMATA bifida, acuminata. *fig. 9. 11.*

NECTARIUM: Glandulæ tres, flavæ, germen coronant. *fig. 10.*

PERICARPIUM: CAPSULA coriacea, subrotunda, sexlocularis.

SEMINA numerosa, minima, subrotunda.

ROOT: this plant easily multiplies itself by means of runners which shoot out to a great length, and is supported by long fibrous roots, which penetrate deep into the mud.

LEAVES six or eight, swimming, of a roundish kidney shape, fleshy, smooth, perfectly entire, somewhat transparent, marked with a few circular but numerous transverse lines, reddish underneath.

LEAF STALKS six or seven inches long, thick, transparent, having numerous cross bars.

SHEATHS in both sexes numerous, next the root, oval, and transparent, in the male plant also a pair grow out about the middle of the flower stalk which contain the tender unopen'd blossoms as in a bladder.

FLOWER-STALKS the length of the leaf stalks, upright; the male producing three or four flowers, the female one only, thicker in size.

Male.

CALYX: a PERIANTHIUM of three leaves, which are oval, concave, yellowish, membranous and spreading. *fig. 1.*

COROLLA: three, white, flat *Petals* a little crumpled, very tender, and yellow at bottom.

STAMINA: nine FILAMENTS, disposed in three rows, of which each in the middlemost puts out from its base on the inside a style like substance which is placed in the center of the flower. The two other rows are connected at bottom so that the internal and external filament adhere together; ANTHERÆ yellow, nearly linear, with two cavities. *fig. 2. 3. 4. 5. 6. 7.*

PISTILLUM: the rudiment only of a GERMEN in the center. *fig. 8.*

Female.

CALYX: a Perianthium as in the male, placed above the Germen.

COROLLA as in the male.

PISTILLUM: GERMEN somewhat oval, beneath the calyx; STYLES six, the length of the calyx, spreading, flat, forked and channel'd; STIGMATA forked and pointed.

NECTARY: three yellow *Glands* crown the germen.

SEED-VESSEL: a roundish, leathery *Capsule*, with six cavities.

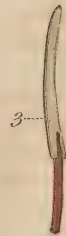
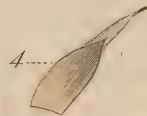
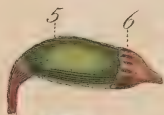
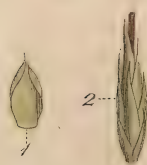
SEEDS numerous, very minute, and roundish.

Most of the deep ditches with a muddy bottom, having a flow current of water, and which abound in the vicinity of the Thames, have their surface cover'd with this plant in Autumn, at which period its blossoms which are uncommonly delicate make their appearance.

The leaves and indeed the whole structure and oeconomy of the Frog-bit is exceedingly curious, and deserving the minute attention of the inquisitive Botanist.

Its particular uses we seem at present unacquainted with.

RAY mentions a variety of it with sweet, double flowers, growing in a ditch at the side of *Audrey Causey* near a wooden bridge in the Isle of Ely.



Hypnum purum

Saxifraga

HYPNUM PURUM MEADOW HYPNUM.

HYPNUM *Lin. Gen. Pl. CRYPTOGRAMIA MUSCI.*

Anthera operculata, Calyptra lævis, Filamentum laterale ortum e perichætio.

Raii Syn. Gen. 3. MUSCI.

HYPNUM *purum* furculis pinnato-sparfis subulatis, foliis ovatis obtusis conniventibus. *Lin. Syst. Vegetab.*

p. 108. Sp. Pl. 1594. Fl. Suecic. 1031.

HYPNUM ramis teretibus, foliis ovato lanceolatis, fetis prælongis, capsulis inclinatis, aristatis.

HYPNUM *purum. Scopoli Fl. Carniol. n. 1326.*

HYPNUM cupressiforme vulgare, foliis obtusis. *Dillen musc. p. 309 fig. 45.*

MUSCUS squamofus cupressiformis. *Vaillant Bot. parif. p. 138. n. 15. Tab. 28. f. 3.*

HYPNUM terrestre erectum, ramulis teretibus, foliis inter rotunda et acuta mediomodo se habentibus.

Raii. Syn. 81.

Hudson. Fl. Angl. ed. 2. p. 504.

Lightfoot Fl. Scot. p. 753.

CAULES teretiusculi, suberecti, simplices seu ramosi, squamofi, nitentes, apicibus plerumque crassifloribus.

RAMULI pinnato-sparfi, teretiusculi, subulati, plerumque recurvi.

FOLIA ovata, obtusa, mucronata, convexo concava, tenera, nitida, dense imbricata, adpressâ, pallide virentia *fig. 1. auct.*

PEDUNCULI nobiscum non raro occurrunt mense Novembri, unciales et biunciales, erecti, inferne ruberrimi, superne flavescentes, parum flexuosi, nitidi.

PERICHÆTIUM oblongum, squamofum, squamæ erectæ, lanceolatæ, adpressæ. *fig. 2.*

CAPSULÆ adultæ subovatæ, parum nutantes; *fig. 5. 8. Calyptra* membranacea, lævis, primo erecta *fig. 4.* cito caduca *fig. 3. Operculum* breve, conicum, *fig. 6. 7; Ciliæ*, externæ plurimæ, fetaceæ, rigidulæ, rufescentes; internæ membranâ connexæ, apice convergentes; *Pollen* seu *Semen* virescens. *fig. 10.*

STALKS roundish, somewhat upright, simple or branched, scaly, shining, the tops generally thicken'd.

SMALL BRANCHES numerous, irregularly pinnated, tapering, generally bent back.

LEAVES ovate, obtuse, but terminated by a short point or awn, convex on one side and concave on the other, tender, shining, numerous, laying closely one over the other, of a pale green colour. *fig. 1. magnif.*

PEDUNCLES not unfrequent with us in the month of November are from one to two inches in length, upright, below of a bright red colour, above yellowish, a little crooked and shining.

PERICHÆTIUM oblong, scaly, scales upright, lanceolate and press'd to the bulb. *fig. 2.*

CAPSULES when full grown are somewhat ovate, and a little nodding *fig. 5. 8. Calyptra* membranous, smooth, at first upright *fig. 4.* soon falling off *fig. 3; Operculum* short and conical *fig. 6. 7;* the outer *Ciliæ* numerous, tapering, somewhat rigid and of a reddish brown colour, the the internal ones connected by a membrane and converging to a point; *Pollen* or seed of a greenish colour. *fig. 10.*

THE *Hypnum purum* has been considered as producing its Fructifications but sparingly, yet if it be examined at the proper season of the year viz. in the month of November, the period of its greatest perfection, it will not be found deficient in this respect, at that time its leaves are of a bright green colour, but as the plant advances they change to a yellower hue than most others.

DILLENIIUS makes no mention of the Calyptra belonging to this moss, from whence it would appear that like most other Botanists he examined it at too late a period; in general those Capsules which have a short Operculum carry the Calyptra but a little while, as in the present plant, while those in which the operculum is long bear it often to the falling off of the operculum itself as in the *Bryum undulatum*.

This is one of the most general Mosses we have, growing in woods, in pastures and by hedge sides universally, in the former it is most frequently found with its capsules, the oak of Honour Wood and the woods adjoining produce it in this state at the time above mentioned in the greatest plenty; being a moss generally free from all impurities it is made use of by the anglers in Lancashire and probably in other counties to scour their worms in. *Dill. hist. musc. p. 310.*

BRYUM SUBULATUM. AWL-SHAPED BRYUM.

BRYUM *Lin. Gen. Pl. CRYPTOGRAMIA MUSCI.*

Anthera operculata. *Calyptra* lævis. *Filamentum* e tuberculo terminali ortum.

Raii Syn. Gen. 3. MUSCI.

BRYUM *subulatum* antheris erectis subulatis, furculis acaulibus. *Lin. Syst. Vegetab. p. 797. Sp. Pl. p. 1581. Fl. Suec. n. 991.*

BRYUM caule brevissimo, foliis lanceolatis, capsulis longissimis, operculo prælongo. *Haller. hist. 1827.*

BRYUM *subulatum. Scopoli Fl. Carn. n. 1304.*

BRYUM capsulis longis subulatis. *Dill. Musc. 350. t. 45. f. 10.*

BRYUM erectis longis et acutis falcatis capitulis, calyptra subfusca, foliis serpylli pellucidis. *Raii Syn. 92. Vaill. Bot. Par. t. 25. f. 8.*

Hudson. Fl. Angl. ed. 2. p. 476.

Lightfoot. Fl. Scot. p. 719.

RADICES nigrae, fibrillosae, parum ramosae.
CAULES subseffiles, dense coacervati, simplices vel
ramosi.

FOLIA ovato-lanceolata, patentia, pellucida, pallide
viridia, modice carinata, mucrone brevi ter-
minata, ad lentem visâ. *fig. 1.*

PEDUNCULI unciales et ultra, pallide lutescentes,
ficci contorti, bulbillo præditi oblongo. *fig. 2.*

CAPSULÆ prælongæ, cylindraceæ, subaurantiacæ,
incurvæ. *fig. 3.* annotinæ rectiores e fusco-
purpureæ, e quarum ore egreditur trunculus
feu cornu, e ciliis in tubum contortis com-
positum, apice vero liberis. *fig. 6, 7, 8, 9;*
*Calyptra longitudine fere capsulæ, acumi-
nata. fig. 4.*

OPERCULUM capsulâ duplo brevior, acuminatum.
fig. 5.

ROOTS black, fibrous, a little branched.

STALKS nearly sessile, growing close together, simple
or branched.

LEAVES ovato-lanceolate, spreading, transparent, of
a pale green colour, moderately keel'd, ter-
minated by a short point, as magnified. *fig. 1.*

PEDUNCULES an inch or more in height, of a pale
yellow colour, twisted when dry, furnish'd
with an oblong bulb. *fig. 2.*

CAPSULES very long, cylindrical, somewhat orange
coloured and crooked, *fig. 3;* those of the
preceding year straighter, of a purplish brown
colour, from the mouth of which proceeds
a little trunk or horn composed of the ciliae
twisted into a tube, but loose at top. *fig. 6, 7,
8, 9. Calyptra* almost the length of the
capsule, having a long point. *fig. 4.*

OPERCULUM twice as short as the capsule and pointed.
fig. 5.

FEW of the Mosses are subject to so little variety, or more easily discovered than the *Bryum subulatum*, before it puts forth its capsules we are struck with the broadness of its leaves and their star-like expansion; as it advances the capsules while covered by their Calyptras are unusually long, pointed, and in general a little bent whence it has acquired the English name of *Awl-shaped*, the capsule in its last state after losing both its Calyptra and Operculum, is peculiarly distinguished by the protrusion of a substance from its mouth, of a whiter colour than the body of the capsule, this substance when magnified is found to consist of a number of threads or filaments forming a thin spiral tube, yet loose and unconnected at top, see *fig. 7, 8, 9*, the tube is formed before the operculum falls off, for its spiral line may be observed through the transparent operculum when it is in a young state: DILLENIIUS using a small magnifier, has not done justice to this very singular and curious character.

This Moss is not uncommon on banks surrounding woods, also in shady lanes; I have observed it in great plenty on a bank on the right hand side as you enter *Shirley-Common*, passing through *Shirley* from *Croydon*, also about *Charlton* and *Coombe Woods*.

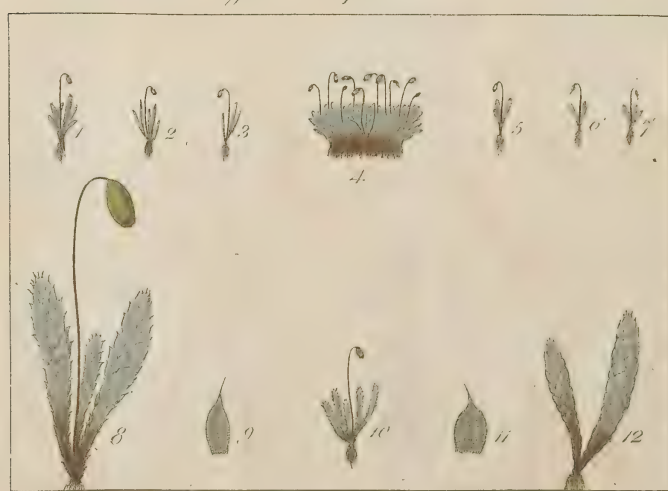
It produces its Capsules in February and March.



Bryum subulatum.



Bryum capillare



Bryum argenteum

BRYUM ARGENTEUM. SILVER BRYUM.

BRYUM *Lin. Gen. Pl. CRYPTOGAMIA MUSCI.*

Anthera operculata. Calyptra lævis. Filamentum e tuberculo terminali ortum.

Raii. Syn. Gen. 3. MUSCI.

BRYUM *argenteum* antheris pendulis, furculis cylindricis imbricatis lævibus. *Lin. Syst. Vegetab. p. 789. Sp. Pl. 1586. Fl. Suecic. n. 1008.*

BRYUM caulis teretibus, capsulis ovatis acuminatis pendulis. *Haller. hist. 1821.*

BRYUM *argenteum. Scopoli. Fl. Carn. n. 1310.*

BRYUM pendulum julaceum argenteum et fericeum. *Dill. musc. 392. t. 50. f. 62.*

MUSCUS squamosus argenteus, ericæ folio. *Vaillant. paris. 134. t. 26. f. 3.*

MUSCUS minimus e viridi argenteus, capitulis oblongis cernuis. *Mori. hist. 3. p. 627. f. 15. t. 6. f. 17.*

CONFERTIM nascitur, cauliculis sessilibus, in ramulorum aliquot furculos teretes, (duarum trium linearum) divisos.

FOLIA ovata-lanceolata, acuta, pilo terminata, quadruplici alterna serie disposita, tam arcte cauli appressa sunt, ut nonnisi per lentem distinguere possint, pilis creberrimis, fericeis, argenteis.

PEDUNCULI circa hiemem surgunt e basi cauliculi, ab aliquot lineis ad semunciam longæ, inferne purpureæ, superne pallidiores.

CAPSULÆ ovatae, nutantes, luteæ, versus setam rubicundæ, quæ ab initio virides, et rectæ ante maturitatem fuere. *Operculum* breve, obtusum, aurantiacum. *Ora* ciliata, *Calyptra* e viridi fusca, quæ nonnisi in junioribus capsulis reperitur.

Stalks growing close together and sessile, dividing into round furculi two or three lines in length.

LEAVES oval pointed, terminated by a hair, disposed in an alternate quadruple row, so closely pressed to the stalk, as to be scarce visible without a magnifier, the hairs exceedingly numerous, silky, of a silver colour.

PEDUNCLES arise from the bottom of the stalks, about winter, from a few lines to half an inch in length, below purplish, above paler.

CAPSULES oval, pendulous, yellowish, but near the peduncle reddish, when young green, and upright. *Operculum* short, obtuse and of an orange colour. *Mouth* ciliated, *Calyptra* of a greenish brown, and only visible in the young capsules.

It is not possible in painting to do justice to the silvery appearance which this little moss usually puts on, and which in general obviously distinguishes it from all our other Bryums, this silvery hue it however loses in some situations and appears of a green colour, especially in moist shelter'd places, where the leaves not only become greener but laxer also and the furculi grow to a much greater length, in this state it is figured by DILLENIUS as a distinct species, the furculi vary much likewise in their shape sometimes becoming very fine and almost thread shaped as represented at *fig. 2. 3.*

The Bryum argenteum produces its Capsules as early as December and January, and this their early appearance is one reason why they are not so often found as some others, but added to this it does not produce fructifications so plentifully as some other Bryums, large patches of it being often found perfectly barren.

It is very common on Walls and Banks.

Fig 1. to 7. represent it of its natural size in its various states, fig 8. to 12 magnified.

BRYUM CÆSPITICIUM. MATTED BRYUM.

BRYUM *cæspiticium* antheris pendulis, foliis lanceolatis acuminato-setaceis, pedunculis longissimis. *Lin. Syst. Vegetab. p. 799. Sp. Pl. p. 1586. Fl. Suecic. 1010.*

HYPNUM foliis ovato-lanceolatis aristatis patulis, capsulis ovatis obtusis pendulis. *Haller. hist. 1790.*

BRYUM pendulum ovatum cæspiticium et pilosum, seta bicolori. *Dill. Musc. 396. tab. 50. f. 66.*

MUSCUS capillaceus minimus, capitulo nutante, pediculo purpureo. *Vaill. paris. 134. t. 29. f. 7.*

MUSCUS trichoides capitulo parvo reflexo, pediculo ima medietate rubro, summa luteo-viridi. *Moris. H. Ox. III. p. 629. f. xv. t. 6. f. xv. Raii. Syn. p. 100. n. 44.*

CAULICULIS in densos cæspites congestis, lata strata efficit, supra muros imprimis et in terra glareosa. *fig. 3.*

SURCULI ipsi breves, et ad aliquot tantum lineas super terram eminentes, *fig. 1. 4.* subramosi, inferius multo tomento fusco obfusi.

FOLIA exigua, dense congesta, ovato lanceolata, pilo incano terminata, pallide e luteo viridia, fericea, splendentia, sub lente in humida planta pellucida. *fig. 14. 16.*

PEDUNCULI unciales, *fig. 5.* inferne purpureæ, superne luteæ, e furculorum annotinorum roscula terminali prodeunt, *fig. 1.* inter ramulos, five potius furculos juniores, bulbillo instructi, *fig. 2.*

CAPSULA ex ovato-cylindrica, ab initio erecta *fig. 7.* tenuior, deinde sensim crassescens, pendula, *fig. 8. 9. 11.* sublutea, operculo tecta papilliformi, miniato, nitido, quo secedente ora apparet ciliata. *fig. 12.*

CALYPTRA in junioribus erecta, gracilis, conica, pallide fusca, in adultioribus rufa, inclinata. *fig. 7. 8. 9.*

STALKS growing closely together, form broad turfs particularly on walls and gravelly situations. *fig. 3.*

SURCULI themselves short, raised a few lines only above the earth, somewhat branched, *fig. 1. 4.* below cover'd with a brown woolly kind of substance.

LEAVES small, closely compacted, oval pointed, terminated by a grey hair, of a pale yellowish green colour, silky, shining; under a magnifier, in the moist plant transparent. *fig. 14. 16.*

PEDUNCLES about an inch in length, *fig. 5.* below purple, above yellow, proceeding from the top of the last years furculus *fig. 1.* between the branches or rather younger furculi, furnished with a small bulb. *fig. 2.*

CAPSULE of an oval cylindrical form, at first upright. *fig. 7.* slender, afterwards becoming gradually thicker and pendulous, *fig. 8. 9. 11.* of a yellowish colour, cover'd with a small, short, prominent red and shining operculum, which falling off the mouth appears ciliated. *fig. 12.*

CALYPTRA on the young capsules upright, slender, conical, and of a pale brown colour, in those more advanced reddish brown, and inclined to one side. *fig. 7. 8. 9.*

THIS species of Bryum is very commonly met with on Walls also on gravelly and sandy soils producing its Capsules in February, March and April, it varies much in size, in the shape of its leaves and the length of its Surculi.

HYDNUM AURISCALPIUM. FIR HYDNUM.

HYDNUM *Lin. Gen. Pl. CRYPTOGAMIA FUNGI.*

Fungus horizontalis subtus echinatus.

Raii. Syn. Gen. 1. FUNGI.

HYDNUM *auriscalpium* stipitatum, pileo dimidiato. *Lin. Syst. Vegetab. p. 822. Spec. Plant. p. 1648. Fl. Suecic. 1100. Lappo 524.*

ECHINUS petiolo gracili laterali, pileolo plano obscuro. *Haller Hist. n. 2321.*

ERINACEUS parvus hirsutus exfulvo fuscus, pileo semiorbiculari, pediculo tenuiore. *Mich. Gen. 132. t. 72. f. 8.*

FUNGUS erinaceus parvus in conis abietis nascens. *Buxb. Cent. 1. t. 57. f. 1.*

FUNGUS erinaceus parvus pediculo longiore auriscalpium referens buxei coloris. *Buxb. ball. 129. t. 829.*

ERINACEUS minimus auriscalpium referens. *Cels. Ups. 20.*

FUNGUS erinaceus esculentus parvus, pediculo longiore, auriscalpium referens, buxei coloris, in strobilis pini eveniens. *Kram. tent. 146.*

Hudson. Fl. Angl. ed. 2. p. 628.

Lightfoot Fl. Scot.

Roses Elem. of Bot. app. t. 3.

Schaeffer. Fung. tab. 143.

Ex strobilis feu ramulis emortuis pini nascitur hic Fungus.

STIPES pollicaris feu bipollicaris, inferne incrassatus, sublanuginosus, superne ad apicem sensim attenuatus, pilis numerosis brevibus, rigidulis, horizontalibus scabriusculis.

PILEUS magnitudine unguis indicis, plerumque dimidiatus, rotundato-reniformis, horizontalis, superne planiusculus, fasciis luteis et fuscis in orbem dispositis notatus, hirsutus, demum nigricans, inferne canescens, echinatus, *fig. 1.* Echini plurimi, conferti, acuminati, simplices. *fig. 2.*

From the decayed cones or small branches of the fir springs this Fungus.

STALK from one to three inches in height, thickened at bottom and somewhat woolly, from thence to the top gradually tapering and beset with numerous, short, horizontal, and somewhat rigid hairs, which give it a manifest roughness.

HEAD or cap the size of the forefinger nail, in general halved, of roundish kidney-shape, horizontal, on the upper side flattish, marked with yellow and brown stripes circularly disposed, hirsute, finally becoming black, underneath of a greyish colour, and prickly, *fig. 1.* Prickles numerous growing thickly together, simple, and running out to a point, *fig. 2.*

SOME of the more antient Botanists have given to this species of *Hydnum* the name of *auriscalpium* or ear-picker, from its resemblance to the instrument used for that purpose, but it should be observed that it is only when young or small that it bears this resemblance.

Its habitat is on the half decayed branches, and cones of the Fir Tree, especially the latter, most probably it is not attached to any particular species, the Cones on which I found it were of the *Pinus sylvestris*.

In the time of Mr. RAY, it was not known to be a native of Great Britain, of late years it has been found by several inquisitive Botanists in various parts of the Kingdom, as in *Scotland* by Mr. LIGHTFOOT, near *Norwich* by Mr. ROSE, and in a small pine wood opposite to, and by the road only separated from Lord MANSFIELD'S House near *Hampstead* by Mr. DIXON, and from which wood the specimens here represented were taken.

The fifth of October 1780, I found a great number of them in the said wood in the greatest perfection, they grew in the moist part of the wood out of the cones buried under the dead leaves.

In its use it does not appear to be very important, at least immediately to us, KRAMER applies to it the epithet of *esculentus*, but of all the Fungi this is the least proper for eating, as it is not only small in quantity but biting to the taste, and tough as leather.

To the Student it affords a very good example of the Genus *Hydnum*.



Hydnum auriscalpium.

1870

1870

1870

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AGARICUS GLUTINOSUS. SLIMY MUSHROOM.

AGARICUS *Lin. Gen. Pl. FUNGI.*

Fungus horizontalis, subtus lamellofus.

Raii. Syn. Gen. I. FUNGI.

AGARICUS *glutinosus* pileo hemisphærico stramineo viscido, lamellis horizontalibus, annulo obsoleto.

FUNGI *pratenses minores, externe viscidii, albi et lutei, pediculis brevibus, Raii. Syn. p. 7. 2 ?*

STIPES plerumque solitarius, subinde multiplex, bipollicaris ad palmarem, crassitie pennæ coracis, filiformis, albidus, pene solidus, tubo minimo, glutinosus.

ANNULUS paulo infra pileum obsoletus.

PILEUS uncialis, ad biuncialem, stramineus, in adultis hemisphæricus, semper convexus, et glutine plus minusve obductus, pluviis madefactus magis fuscescit, et diaphanus evadit, unde striatus aliquando apparet.

LAMELLÆ plurimæ, simplices, e fusco purpurascens, nebulosæ, integris circiter 20, horizontalibus, *fig. 1. tribus brevioribus interpositis, fig. 2. 3. Pulverem effundunt e fusco purpurascens.*

Fig. 5. Frustrulum lamellæ vitro auctum, exhibens Capsulas feminiferas quaternas.

STALKS generally single, sometimes clustered, from two to four inches in height, the thickness of a crow quill, thread-shaped, whitish, almost solid, the tube being very small, glutinous.

RING a little below the cap, scarce perceptible.

CAP from one to two inches in breadth, of a straw colour; in the full grown ones hemispherical, always convex, and more or less glutinous, wet with rain it becomes browner and transparent, so that it sometimes appears as if striated.

GILLS numerous, single, of a brownish purple colour, clouded, whole ones about twenty, horizontal, *fig. 1. three shorter ones placed betwixt them fig. 2. 3. they throw out a Powder of a brownish purple colour.*

Fig. 5. a small piece of the gill magnified, in which are shewn the Capsules which contain the seeds placed four together.

Lithologia mihi cristas non eriget, says LINNÆUS in the preface to his mineralogy; he might with equal propriety have applied the same expressions to himself respecting the *Fungi*, as in the last edition of his *Systema vegetabilium* we are presented with no more than twenty-four species of *Agarici Stipitati*, or Mushrooms with stalks: MICHELI on the contrary has given us Six-hundred and thirty-four; RAY in the third edition of his *Synopsis* has fifty-seven species, fourteen of which are added by DILLENIUS; GLEDITSCH who has written a particular treatise on the *Fungi*, reduces the *Agarici* to thirty-two species, but informs us that there are one hundred and twenty more, involved in much obscurity; SCOPOLI describes one hundred and fourteen, and HALLER one hundred and thirty four; Mr. HUDSON in the last edition of his *Flora Anglica* enumerates forty six, and Mr. LIGHTFOOT accurately describes twenty in his *Flora Scotica*; and yet amidst all these enumerations and descriptions, scarce any two of them are agreed about the same Fungus; of the hundred and fourteen described by SCOPOLI there are only eleven which have the names of LINNÆUS, the *procerus* of SCOPOLI is the *annulatus* of LIGHTFOOT, the *coriaceus* of LIGHTFOOT is the *pratensis* of HUDSON, while the *coriaceus* and *pratensis* of SCOPOLI differ from both theirs.

Amidst this confusion of Authors, arising partly from the intricacy of the subject, and partly from their inattention to specific characters, we shall be often obliged to be sparing in our synonyms, and occasionally find it necessary to introduce a new name as in the present instance.

Although the Fungus here figured is a very common one, we are not able with absolute certainty to say that it is either in RAY, LINNÆUS, SCOPOLI, LIGHTFOOT, or HUDSON, the name of *glutinosus* is therefore given it, as it always is more or less slimy, and which sliminess is not confined to the upper part of the cap, but extends to the stalk: this character joined to the roundness of the cap, and the horizontal appearance of the gills, which form a straight line from the edge of the Cap to the stalk, will always readily distinguish this Mushroom.

The Cap varies in size from two lines to two inches in diameter, and the stem from one to four or five in height, the usual colour of the cap is of a pale straw colour, sometimes inclined more to the yellow, and sometimes more to a dirty brown, especially when wet; it is gradual in its decay, not quickly dissolving as some do, nor drying up like others.

It most commonly grows singly, but sometimes springs up in clusters, especially on those spots where dung has been thrown.

Its place of growth is in exposed, and elevated pastures, especially such as are moist, it may indeed be found in most meadows, and sometimes in great abundance, the particular places where I have been accustomed to find it plentifully, are on *Peckham-Rye*, and in the pastures about the *Oak of Honour Wood*, also in the pasture one ascends, before entering *Hornsey-Wood*, going from *Islington*.

About the latter end of October they are most plentiful, but may be found earlier as well as later.

There is nothing acrimonious or disagreeable in the taste of it, yet its appearance will not recommend it to the lovers of Mushrooms.



Agaricus glutinosus.



AGARICUS PLICATILIS. PLAITED MUSHROOM.

AGARICUS Lin. Gen. Pl. CRYPTOGAMIA FUNGI.

Fungus horizontalis, subtus lamellosus.

Raii. Syn. Gen. I. FUNGI.

AGARICUS *plicatilis* stipitatus, pileo campanulato seu plano, murino, pellucido, plicato.

AGARICUS *crenulatus* membranaceus coerulescens fulcatus, centro papillari, stipite exili. *Muller. Fl.*

Dan. t. 832. f. 2.

FUNGUS perpusillus, pediculo oblongo, pileolo tenui, utrinque striato, seu flabelli in modum plicatili.

Raii. Syn. p. 8. n. 24.

Batarr. Fung. Tab. 27. B. C.

STIPES solitarius, in adultis biuncialis et ultra, magnitudine culmi triticei minoris, erectus, teres, filiformis, fistulosus, laevis, albus, tener.

PILEUS cum primo erumpit nucleum nucis avellanæ magnitudine æquat, e flavo-fuscus, vix manifeste striatus, cito oblongo campanulatus evadit, striæ subundulatæ magis luculenter apparent, color in murinum incipit transire, nunc adultus, forma in campanulatam mutatur, mox evasura plana, uncialis seu sesquiuncialis, murinus, vertice plano, fusco seu albido, tenellus, plicatus; cutis diaphanus, sine carne, superne farinâ nullâ adpersus, fastigiis plicarum subvillosis, peractâ florentia margo invertitur et nigrescit.

LAMELLÆ paucæ, concolores, pulverem subtilissimum e ceruleo-nigricantem effundentes.

STALKS single, in those which are full grown two inches or more in height, the size of a small wheat straw, upright, round, of the same thickness throughout, hollow, smooth, white, and tender.

CAP when it first springs up is about the size of the kernel of a hazle nut, of a yellowish brown colour, scarce preceptibly striated, it soon becomes of an oblong bell-shape, the small furrows appear more evidently, are somewhat waved, and the colour changes to grey or mouse colour, now full grown, it becomes more bell-shaped, and afterwards appears flat, is from an inch to an inch and half in diameter, of a mouse colour, tender, plaited, the crown flat, brown or whitish; the skin transparent, without any flesh, at top not sprinkled with meal, the ridges of the plaits somewhat villous, when the fructification is over, the edge becomes black and turns in.

GILLS few, of the same colour as the cap, throwing out a very fine powder of a blueish-black colour.

THE Mushroom here figured in its several states is one of those, whose caps in decaying dissolve into a black liquid, these in general are of short duration, and this being of so thin and delicate a substance is particularly so. On the twelfth of September ten or twelve of these of different ages made their appearance on a grass plat in my garden, and on the sixteenth no traces of them were to be seen.

Its usual place of growth is in Pastures, Meadows, and Grass Plats, in all of which it is not unfrequent in the Months of September and October.

The Cap is so remarkably plaited, or fan-like, that we could not but prefer a name expressive of so characteristic a circumstance to MULLER'S term *crenulatus*, the *Agaricus tenellus* of Mr. HUDSON approaches so near to ours from his description, that we should have considered it as the same, had not PLUKENET'S figure quoted by him been very different.



Agaricus plicatilis.



Scilla maritima

AGARICUS OSTREATUS. OYSTER MUSHROOM.

AGARICUS *Lin. Gen. Pl.* CRYPTOGAMIA FUNGI.

Fungus horizontalis, subtus lamellosus.

Raii Syn. Gen. 1. FUNGI.

AGARICUS *ostreatus* substipitatus, fasciculato-imbricatus, pileo cinereo obovato, margine involuto; lamellis albidis decurrentibus, basi subanastomosantibus.

AGARICUS *ostreatus*. *Jacquins Fl. Austr. t. 104.*

Menfibus Decembri et Januarii e truncis arborum prefertim falicis nobiscum excrefcunt Fungi icone annexâ illustrati; plurimi plerumque simul erumpunt, imbricatum congefti, diu manent et demum exficcantur.

STIPES; etfi pileus trunco arboris ut plurimum bafi fuâ adnectitur nihilominus in quibusdam specimenibus stipes feu pars ftipitis magis luculenter apparet, lamellis decurrentibus tecta.

PILEUS magnitudine, et forma varius, ficut in icone, in junioribus convexus, lævis, rhurinus, cærulescens, margine integro, involuto, in fenefcentibus planiusculus feu parum concavus, fufcus, bafi in inferioribus tomento niveo obductâ; caro albiffima, craffa, fubdulcis.

LAMELLÆ primum albæ, demum ex rufo-cinereæ, plurimæ, tenues, inæquales, a lineis duabus ad fex latæ, decurrentes, bafi anastomosantes, exfuccæ.

In the months of December and January the Fungi illustrated by the annexed figure, grow with us principally out of the trunks of willow trees; they usually come forth in clusters heap'd one on another, remain a confiderable time and finally wither,

STALK: although the cap is for the most part connected to the trunk of the tree by its base, yet in some specimens the stalk or part of a stalk more evidently appears, cover'd with the gills which run down it.

CAP variable both in size and shape as is represented on the plate, in the young ones convex, smooth, mouse coloured, blueish, the edge intire, rolled in; in the older ones flattish, or a little hollow, and brown; the base in the lower ones cover'd with a white kind of down; flesh very white, thick, and sweetish to the taste.

GILLS at first white, afterwards of a reddish ash colour, numerous, thin, unequal, from two lines to six in breadth, decurrent, uniting so as to form a kind of network at bottom, juiceless.

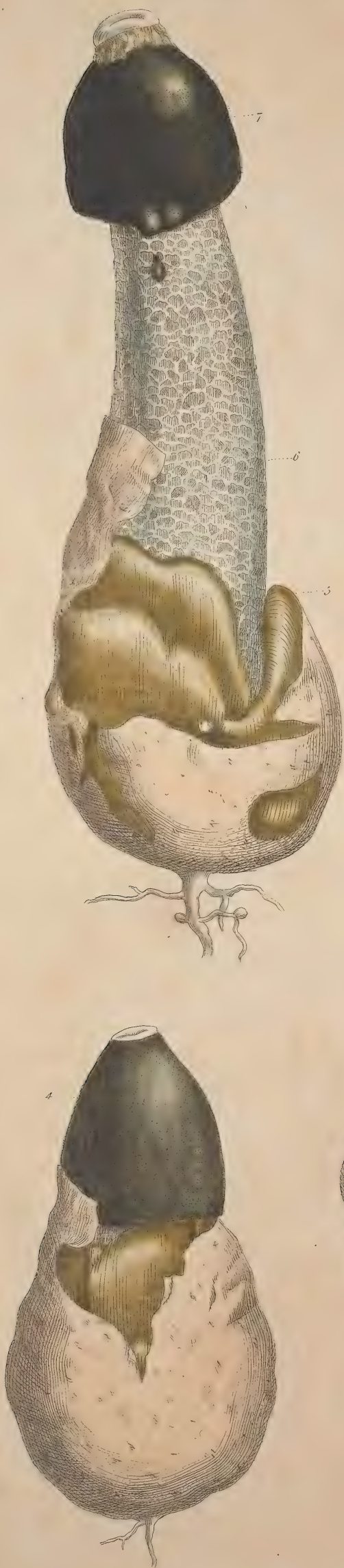
Considering the size and singularity of this Mushroom, and that is by no means uncommon, it is matter of surprize that it should have escaped the notice of our English Botanists; one reason perhaps may be assigned, viz. that it makes its appearance later in the season than most others: in December and January when the weather has been mild I have found it on the bodies of the old Willow Trees, in the neighbourhood of Saint Georges-Fields; Mr. DICKSON has observed it on the Elm, in Saint James's-Park, and JACQUIN from whom we borrow the name of *ostreatus*, describes it as growing out of the Walnut.

As this species and another with a footy stalk which we propose hereafter to figure, are almost the only ones that are found on trees so late in the year, it cannot easily be mistaken, tho' like most of the family it is given to sport; in general it grows in clusters of three, six, or more of different sizes, placed one over another, bearing a distant resemblance to oysters, when young and perfect they are of a mouse colour with a bloom on them like that of a plum, the edge is rolled in, the gills are white, decurrent, and beautifully anastomose at bottom, but it is not in every specimen that this distinguishing character is observable, as it grows old the pileus turns up (vid. uppermost fig. on the plate) the gills become of a brownish colour, and frequently much waved, and the whole withers on the tree, the two lowermost figures on the plate represent the Fungus in its young state and shew both sides.

To the smell it is slightly fragrant, to the taste mild, but in chewing tough.



Agaricus ostreatus.



Phallus impudicus.

PHALLUS IMPUDICUS. STINKING MORELL.

PHALLUS *Lin. Gen. Pl. CRYPTOGAMIA FUNGI.*

Fungus supra reticulatus, subtus lævis.

Raii. Syn. Gen. 1. FUNGI

PHALLUS *impudicus* volvatus stipitatus, pileo celluloso. *Lin. Syst. Vegetab. p. 822. Spec. Plant 1648: Fl. Suec. n. 1261.*

PHALLUS *impudicus. Scopoli Fl. Carn. n. 1605.*

FUNGUS *fœtidus, penis imaginem referens. C. B. pin. 374.*

PHALLUS *Hollandicus Park. 1322. Raii. Syn. p. 12. Hudson. Fl. Angl. ed. 2. p. 629. Lightfoot. Fl. Scot. p. 1044. Fl. Dan. t. 175. Schæffer Icon. Fung. t. 196. 197. 198.*

RADIX fibrosa, fibris majusculis, teretibus, albis, paulo infra terram repentibus, quibus hic illic accrescunt globuli albi, qui justam magnitudinem acquisiti, supra terram eminent et Volvæ dicuntur. *fig. 1. 2.*

VOLVA subrotunda, basi paululum compressa, lævis, magnitudine pilæ palmariæ, alba, ponderosa, tunicâ satis crassâ exterius tecta, cui proxime subest gelatina quædam pellucida, flavo-fusca. *fig. 3. 5.*

STIPES disrupta volva, exsurgit stipes, crassitie pollicis, palmaris et ultra, paululum curvatus, teres, albus, levis, spongiosus, fistulosus, utrinque acuminatus. *fig. 6.*

PILEUS subconicus, stipiti laxè insidens, primo lævis, solidus, olivaceus, lubricus, mox fœtidissimus, cellulis materie seminiferâ externe posita adhuc repletis, quâ diffuente aut muscis exfusa, superficies externa cellulosa apparet, interna parum rugosa, vertice truncato, albifimo, oblongo, pervio, *fig. 4. 7. 8.*

ROOTS fibrous, the fibres large, round, white, creeping a little under the surface of the earth, to which grow here and there white globules or tubercles, which when full grown project above the surface of the earth and are called Volvæ or Eggs. *fig. 1. 2.*

EGGS roundish, a little flattened at the base, smooth, the size of a tennis ball, white, heavy, covered with an outer coat of a moderate thickness, immediately under which lies a thick mass of transparent jelly of a yellowish brown colour. *fig. 3. 5.*

STALK on the bursting of the egg the stalk rises up, and is about the thickness of the thumb, four inches and more in height, a little crooked, round, white, spongy, hollow, very light and pointed at both ends. *fig. 6.*

CAP somewhat conical, sitting loosely on the stalk, at first smooth, solid, of an olive colour, and slippery, soon becoming highly fetid, the cells being as yet filled with the matter containing the seed, which flowing out or being eaten by flies, the outer surface appears cellular, the inner a little wrinkled, the top as if cut off, very white oblong and open. *fig. 4. 7. 8.*

IN the months of August, September, and October this singular Phenomenon of the Fungus tribe makes its appearance in Woods, Hedgerows, and Hedges, in some places abundantly, in others rarely, near London it has been found in *Coombswood*, and *Norwood*, but more plentifully in a small fir wood near the *Spaniard Hampstead-beath*, before remarked for producing the *Hydnum auriscalpium*; in this wood on the 24th of September 1780 I discovered near a dozen growing within a small space of each other, some were full grown, others in their egg state, risen about half way out of the ground, and when taken up appearing like so many small tennis balls, *vid. fig. 2*; several of these I carefully carried home, one which was in its greatest perfection my draughtsman for the sake of more conveniently drawing took with him to the *Spaniard* (a place of entertainment on the spot,) but the fetor arising from it quickly pervading every part of the house and rendering it intolerable we were obliged to get rid of it.

On perpendicularly dividing with a sharp knife one of those I had taken home, I was not more struck with the beautiful appearance which the surface of each half exhibited, than the thick mass of pure, transparent jelly, of a brownish yellow colour, deposited betwixt two membranes, immediately under the outer surface, and which enveloped the fungus as yet in embryo. *vid. fig. 3.*

On examining my Fungi in their egg state the next morning, I had the satisfaction to observe that in one of them, the cap of the fungus had just broke through its integuments, and was pushing itself up through the jelly, I thought this a proper opportunity of observing how quick it was in its growth, and found that from the time of its breaking through the outer skin (half past eight o'clock) to the time that it acquired its full height a space intervened of about five hours, in which time it had grown three inches and three quarters; an instance of the quickness of vegetation scarce credible, and perhaps not to be equalled by any other plant.

The Cap on its first coming forth, being covered with the jelly through which it had passed, and being also of a light olive colour but perfectly opaque not unaptly resembled a lump of bird-lime. *vid. fig. 4*; this appearance it retained 'till eleven o'clock, when in some parts it became of a darker colour, at half past twelve, the whole outer surface of the cap was changed to a very dark olive, it now began to smell very offensively, flies came into the room and settled on it, a little past one, it began to dissolve, and drop off, and the cells containing this substance about the top of it began to be visible. *fig. 7*; it was now placed out of doors when the Pileus was almost immediately covered with several species of Flies mostly of the larger sort, who instead of sticking to and perishing on it as related by *Gleditsch* in about two hours left the cells perfectly empty *vid. fig. 8.*

The disagreeable smell arising from the *Phallus impudicus* which alone is often sufficient to detect it, and from which it has acquired in some parts of the kingdom the name of *Stink-horns* has usually been compared to Carion, and generally considered as the effects of its putrefaction—to me the smell appears to be altogether *sui generis*, and not to arise from putrefaction, at least a general putrefaction of the plant—it first arises from the substance lodged in the cells on the out-side of the pileus, which constitute the generic character of the *Phallus*, and with which the seeds of this plant are doubtless incorporated, as soon as this substance begins to liquefy, the effluvia is perceptible, at this time every other part of the plant is perfectly sweet, not excepting the jelly which it must be allowed afterwards acquires a disagreeable odour, apparently from its putrefaction—the Flies allured by the effluvia from the pileus, do not settle on it, to deposit their eggs as on the *Stapelia fetida* or putrid meat, but merely to feed on it, and which they appear to do most deliciously; scarcely ever suffering a drop of the liquid to fall on the ground, whence this species would soon become extinct, had not provident nature supplied it with a root which like the Potatoe throws out numerous offsets.

This plant affords nourishment not only to various species of flies, but also to Snails and Slugs who are extremely fond of its stem.

We may remark that the top of the cap has sometimes two perforations, instead of one its usual number,

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23 Avena flavescens	3
24 ——— elatior	3
36 Anagallis arvensis	1
37 ——— tenella	3
48 Æthusa Cynapium	1
54 Alfine media	1
92 Agrostema Githago	2
106 Adonis autumnalis	2
113 Anemone nemorosa	1
121 Ajuga reptans	1
128 Antirrhinum Cymbalaria	3
129 ——— Elatine	1
131 ——— spurium	2
130 ——— Linaria	2
136 Arabis Thaliana	1
189 Arum maculatum	2
196 Atriplex hastata	2
197 Asplenium Scolopendrium	1
212 Agaricus ovatus	2
213 ——— fimetarius	2
214 ——— glutinosus	3
215 ——— plicatilis	3
216 ——— ostreatus	3
78 Adoxa Moschatellina	2
19 Bromus mollis	1
20 ——— sterilis	1
21 ——— hirsutus	1
79 Butomus umbellatus	2
123 Betonica officinalis	2
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170 Bidens cernua	3
175 Bellis perennis	1
200 Bryum scoparium	1
201 ——— undulatum	1
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203 ——— truncatum	2
204 ——— viridulum	2
205 ——— subulatum	3
206 ——— argenteum	3
207 ——— cespitium	3
9 Circaea lutetiana	3
32 Centunculus minimus	3
38 Convolvulus sepium	1
39 ——— arvensis	2
47 Conium maculatum	1
50 Chenopodium album	2
51 ——— viride	2
52 ——— polyspermum	2
53 ——— Bonus Henricus	3
83 Chrysosplenium oppositifolium	2
93 Cerafium femidecandrium	2
94 ——— viscosum	2
95 ——— vulgatum	2
96 ——— aquaticum	1
114 Caltha palustris	1
138 Cardamine amara	3
139 ——— pratensis	3
171 Carduus marianus	3
190 Carex pendula	3
26 Dipacus pilosus	1
27 ——— sylvestris	3
132 Digitalis purpurea	1
133 Draba verna	1
64 Epilobium hirsutum	2
65 ——— villosum	2
66 ——— tetragonum	2
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21 ——— hairy stalk'd	2
20 ——— barren	1
200 Bryum broom	1
201 ——— curled	1
202 ——— swan's neck	1
203 ——— brown	2
204 ——— green	2
205 ——— awl-shaped	3
206 ——— silvery	3
207 ——— matted	3
156 Birds-foot-Trefoil common	2
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176 Butterbur	1
121 Bugle common	2
6 Brook-lime	2
191 Burnet	2
123 Betony wood	3
25 Blinks	3
141 Crane's-bill Hemlock-leav'd	1
142 ——— stinking or herb Robert	1
143 ——— doves-foot common	2
144 ——— mountain	3
128 Cymbalaria ivy-leav'd	1
54 Chickweed common	1
38 Convolvulus large white	1
39 ——— field	2
102 Cinquefoil common	1
107 Crowfoot round-rooted	1
109 ——— upright meadow	1
108 ——— pale-leav'd	2
111 ——— wood	2
112 ——— celery-leav'd	2
189 Cuckow-pint	2
177 Colts-foot	2
90 Campion red	2
28 Cleavers common	2
92 Cockle	3
190 Carex pendulous	3
158 Clover	3
155 Clover Dutch	3
192 Cats-tail broad-leav'd	3
193 ——— narrow-leav'd	3
175 Daisy common	1
133 Draba vernal	1
116 Dead-Nettle purple	1
118 ——— white	2
165 Dandelion common	1
60 Dock curl'd	2
62 ——— sharp pointed	3
61 ——— broad-leav'd	3
63 ——— narrow-leav'd	3
31 Devil's-bit	3
127 Eye-bright red	2
173 Erigeron purple	1
9 Enchanters Nightshade common	3
55 Elder dwarf	3
56 Flax purging	3
79 Flowering Rush	1
48 Fools-parley	1
129 Fluellin sharp pointed	1
131 ——— round-leav'd	3
132 Foxglove purple	1
18 Fescue grass flote	1
147 Fumitory common	2
22 Foxtail-grass field	2
57 Fritillary common	3
195 Frog-bit	3

70	cinerea	-	-	-	2	11	Flag yellow	-	-	-	3
98	Euphorbia Peplus	-	-	-	1	178	Fleabane common	-	-	-	3
99	Helioscopia	-	-	-	1	179	small	-	-	-	3
127	Euphrasia Odontites	-	-	-	1	174	Groundfel common	-	-	-	3
135	Erysimum Alliaria	-	-	-	2	83	Golden Saxifrage common	-	-	-	2
149	Ervum hirsutum	-	-	-	1	122	Ground-Ivy	-	-	-	2
150	tetraspermum	-	-	-	1	50	Goosefoot white	-	-	-	2
173	Erigeron acre	-	-	-	1	51	purple-jointed	-	-	-	2
18	Festuca fluitans	-	-	-	1	53	Good King Henry	-	-	-	2
57	Fritillaria Meleagris	-	-	-	3	197	Harts-tongue	-	-	-	3
101	Fragaria sterilis	-	-	-	3	47	Hemlock	-	-	-	1
147	Fumaria officinalis	-	-	-	2	69	Heath cross-leav'd	-	-	-	1
28	Galium Aparine	-	-	-	2	70	fine-leav'd	-	-	-	2
104	Geum urbanum	-	-	-	2	35	Hottonia water	-	-	-	1
122	Glechoma hederacea	-	-	-	2	208	Hypnum proliferous	-	-	-	1
141	Geranium cicutarium	-	-	-	1	209	filky	-	-	-	2
142	robertianum	-	-	-	1	210	meadow	-	-	-	3
143	molle	-	-	-	2	42	Honeyfuckle common	-	-	-	1
144	pyrenaicum	-	-	-	3	117	Henbit	-	-	-	2
35	Hottonia palustris	-	-	-	1	58	Hyacinth English	-	-	-	2
43	Hedera Helix	-	-	-	1	168	Hawkweed long rooted	-	-	-	3
58	Hyacinthus non scriptus	-	-	-	2	169	small flowered	-	-	-	3
160	Hypericum pulchrum	-	-	-	1	215	Hydnum ear-picker	-	-	-	3
161	perforatum	-	-	-	1	100	Houseleek	-	-	-	3
162	hirsutum	-	-	-	3	13	Hair-grafs early	-	-	-	3
163	humifusum	-	-	-	3	170	Hemp-Agrimony Water	-	-	-	3
164	Androsæmum	-	-	-	3	126	Hooded willow-herb common	-	-	-	3
168	Hypochaeris radicata	-	-	-	3	43	Ivy	-	-	-	1
169	glabra	-	-	-	3	76	Knot-grafs common	-	-	-	1
195	Hydrocharis Morfus Ranæ	-	-	-	3	139	Ladies-smock common	-	-	-	3
208	Hypnum proliferum	-	-	-	1	138	bitter	-	-	-	3
209	sericeum	-	-	-	2	97	Loosestrife purple-spiked	-	-	-	3
210	purum	-	-	-	3	96	Moufear-chickweed marsh	-	-	-	2
217	Hydnum auriscalpium	-	-	-	3	93	least	-	-	-	2
11	Iris Pseudacorus	-	-	-	3	95	common	-	-	-	2
59	Juncus campestris	-	-	-	2	94	broad-leav'd	-	-	-	2
178	Inula dysenterica	-	-	-	3	114	Marsh-Marygold	-	-	-	1
179	pulicaria	-	-	-	3	78	Mofchatel tuberous	-	-	-	2
8	Lycopus europæus	-	-	-	3	157	Medick hop	-	-	-	2
42	Lonicera Periclymenum	-	-	-	3	15	Meadow-grafs hard	-	-	-	2
45	Lyfimachia Nummularia	-	-	-	3	16	smooth-stalk'd	-	-	-	2
56	Linum catharticum	-	-	-	1	17	rough-stalk'd	-	-	-	2
90	Lychnis dioica	-	-	-	2	194	Mercury Dogs	-	-	-	2
91	Flos cuculi	-	-	-	1	145	Mallow common	-	-	-	2
97	Lythrum Salicaria	-	-	-	3	146	round-leav'd	-	-	-	3
116	Lamium purpureum	-	-	-	1	213	Mushroom Egg	-	-	-	2
117	amplexicaule	-	-	-	2	212	pucker'd	-	-	-	2
118	album	-	-	-	2	214	slimy	-	-	-	3
156	Lotus corniculatus	-	-	-	2	215	plaited	-	-	-	3
159	Lathyrus pratensis	-	-	-	3	216	oyster	-	-	-	3
165	Leontodon Taraxacum	-	-	-	1	45	Moneywort	-	-	-	3
166	Lapsana communis	-	-	-	1	44	Moufear-scorpion-grafs	-	-	-	3
25	Montia fontana	-	-	-	3	218	Morell stinking	-	-	-	3
44	Myosotis scorpioides	-	-	-	3	166	Nipplewort	-	-	-	1
145	Malva sylvestris	-	-	-	2	40	Nightshade woody	-	-	-	1
146	rotundifolia	-	-	-	3	41	garden	-	-	-	2
157	Medicago lupulina	-	-	-	2	124	Nettle hedge	-	-	-	3
158	arabica	-	-	-	3	185	Orchis Bee	-	-	-	1
104	Mercurialis perennis	-	-	-	2	187	early spotted	-	-	-	2
89	Oxalis Acetofella	-	-	-	2	188	meadow	-	-	-	3
148	Orobis tuberosus	-	-	-	1	196	Orach spear-leav'd	-	-	-	2
185	Ophrys apifera	-	-	-	1	88	Orpine	-	-	-	3
186	ovata	-	-	-	3	23	Oat-grafs yellow	-	-	-	3
187	Orchis mascula	-	-	-	2	24	tall	-	-	-	3
188	Morio	-	-	-	3	172	Oxtongue	-	-	-	3
199	Osmunda spicant	-	-	-	2	36	Pimpernel common	-	-	-	1
14	Poa annua	-	-	-	1	37	bog	-	-	-	3
15	rigida	-	-	-	2	32	bastard	-	-	-	3
16	pratensis	-	-	-	2	91	Pink meadow	-	-	-	1
17	trivialis	-	-	-	2	148	Pea wood	-	-	-	1
29	Plantago lanceolata	-	-	-	2	14	Pea common dwarf	-	-	-	1
30	major	-	-	-	2	72	Perficaria spotted leav'd	-	-	-	1
102	Potentilla reptans	-	-	-	1	73	pale flowered	-	-	-	1
103	Anserina	-	-	-	3	74	spotted stalk'd	-	-	-	1
191	Poterium Sanguisorba	-	-	-	2	75	biting	-	-	-	1
198	Polypodium vulgare	-	-	-	1	77	small creeping	-	-	-	1
71	Polygonum Bistorta	-	-	-	1	198	Polypody common	-	-	-	1
72	Perficaria	-	-	-	1	183	Pansie wild	-	-	-	1
73	penfylvanicum	-	-	-	1	34	Pearlwort upright	-	-	-	2
74	var: caul: macul:	-	-	-	1	33	procumbent	-	-	-	3
75	Hydropiper	-	-	-	1	106	Pheasants-eye	-	-	-	2
76	aviculare	-	-	-	1	136	Podded Moufear	-	-	-	2
77	minus	-	-	-	1	110	Pilewort	-	-	-	2
211	Polytrichum subrotundum	-	-	-	2	29	Plantain narrow-leav'd	-	-	-	2
218	Phallus impudicus	-	-	-	3	30	common	-	-	-	2
105	Papaver Rhœas	-	-	-	3	211	Polytrichum dwarf	-	-	-	2
172	Picris echioides	-	-	-	3	105	Poppy smooth-round-headed	-	-	-	3
60	Rumex crispus	-	-	-	1	46	Periwinkle small	-	-	-	3

—obtusifolium

61	obtusifolium	—	—	—	3	59	Rush hairy field	—	—	—	2
62	acutus	—	—	—	3	137	Rocket stinking	—	—	—	3
63	maritimus	—	—	—	3	140	— water	—	—	—	3
107	Ranunculus bulbosus	—	—	—	1	98	Spurge small garden	—	—	—	1
108	hirsutus	—	—	—	2	99	— fun	—	—	—	1
109	acris	—	—	—	1	160	St. John's-wort small upright	—	—	—	1
110	Ficaria	—	—	—	2	161	— common	—	—	—	1
111	auricomus	—	—	—	2	162	— hairy	—	—	—	3
112	sceleratus	—	—	—	2	163	— trailing	—	—	—	3
31	Scabiosa fucifera	—	—	—	3	49	Scandix rough-seeded	—	—	—	1
33	Sagina procumbens	—	—	—	3	80	Saxifrage white	—	—	—	1
34	— erecta	—	—	—	2	81	— rue-leav'd	—	—	—	2
40	Solanum Dulcamara	—	—	—	1	85	Stonecrop white-flowered	—	—	—	1
41	— nigrum	—	—	—	2	86	— common yellow	—	—	—	1
49	Scandix Anthriscus	—	—	—	1	87	— thick-leav'd	—	—	—	3
55	Sambucus Ebulus	—	—	—	3	134	Shepherds-purse	—	—	—	1
80	Saxifraga granulata	—	—	—	1	1	Speedwell procumbent garden	—	—	—	1
81	— tridactylites	—	—	—	2	2	— germander-leav'd	—	—	—	1
84	Stellaria Holostea	—	—	—	2	3	— smooth-leav'd	—	—	—	1
82	Saponaria officinalis	—	—	—	2	4	— ivy-leav'd	—	—	—	2
85	Sedum album	—	—	—	2	5	— wall	—	—	—	2
86	— acre	—	—	—	1	7	— male	—	—	—	3
87	— dasphyllum	—	—	—	3	167	Sowthistle common	—	—	—	2
88	— Telephium	—	—	—	3	199	Spleenwort rough	—	—	—	2
100	Sempervivum tectorum	—	—	—	3	135	Sauce-alone	—	—	—	2
124	Stachys sylvatica	—	—	—	3	84	Stitchwort greater	—	—	—	2
125	— palustris	—	—	—	3	82	Sopewort	—	—	—	2
126	Scutellaria galericulata	—	—	—	3	101	Strawberry barren	—	—	—	3
140	Sisymbrium sylvestris	—	—	—	3	103	Silver-weed	—	—	—	3
167	Sonchus oleraceus	—	—	—	2	149	Tine-tare rough-podded	—	—	—	1
174	Senecio vulgaris	—	—	—	1	150	— smooth podded	—	—	—	1
119	Thymus Acinos	—	—	—	1	26	Teasle small	—	—	—	1
120	— Serpyllum	—	—	—	2	27	— wild	—	—	—	3
134	Thlaspi Bursa-pastoris	—	—	—	1	130	Toadflax common yellow	—	—	—	1
151	Trifolium ornithopodioides	—	—	—	2	119	Thyme Basil	—	—	—	1
152	— subterraneum	—	—	—	2	120	— wild	—	—	—	2
153	— fragiferum	—	—	—	2	152	Trefoil subterranean	—	—	—	2
154	— agrarium	—	—	—	3	151	— birds-foot true	—	—	—	2
155	— repens	—	—	—	3	153	— Strawberry	—	—	—	2
176	Tuffilago Petasites	—	—	—	2	154	— hop	—	—	—	3
177	— Farfara	—	—	—	2	186	Twayblade	—	—	—	3
192	Typha major	—	—	—	3	171	Thistle milk	—	—	—	3
193	— minor	—	—	—	3	164	Tutfan	—	—	—	3
1	Veronica agrestis	—	—	—	1	10	Vernal-grass sweet-scented	—	—	—	1
2	— chamædryas	—	—	—	1	115	Vervain	—	—	—	1
3	— serpyllifolia	—	—	—	1	180	Violet sweet-scented	—	—	—	1
4	— hederifolia	—	—	—	2	181	— hairy	—	—	—	1
5	— arvensis	—	—	—	2	182	— hogs	—	—	—	1
6	— Becabunga	—	—	—	2	184	— Bog	—	—	—	3
7	— officinalis	—	—	—	1	159	Vetchling yellow	—	—	—	3
46	Vinca minor	—	—	—	3	89	Wood sorrel	—	—	—	2
115	Verbena officinalis	—	—	—	1	64	Willow-herb large-flowered	—	—	—	2
180	Viola odorata	—	—	—	1	65	— hoary	—	—	—	2
181	— hirta	—	—	—	1	66	— square-stalk'd	—	—	—	2
182	— canina	—	—	—	2	67	— rosebay	—	—	—	2
183	— tricolor	—	—	—	1	68	— wood	—	—	—	3
184	— palustris	—	—	—	3	8	Water-horehound	—	—	—	3

General INDEX to the Plants of the First, Second, and Third *Fasciculi*,
as arranged according to the System of LINNÆUS.

Plate	Plate	Plate
DIANDRIA MONOGYNIA.	DIANDRIA DIGYNIA.	14 Poa annua
1 Veronica agrestis	10 Anthoxanthum odoratum	15 — rigida
2 — Chamædryas	TRIANDRIA MONOGYNIA.	16 — pratensis
3 — serpyllifolia	11 Iris Pseudacorus	17 — trivialis
4 — hederifolia	TRIANDRIA DIGYNIA.	18 Festuca fluitans
5 — arvensis	12 Aira aquatica	19 Bromus mollis
6 — Becabunga	13 — præcox	20 — sterilis
7 — officinalis		21 — hirsutus
8 Lycopus europæus		22 Alopecurus myosuroides
9 Cirsia lutetiana		23 Avena flavescens
		24 Avena elatior

Plate

- TRIANDRIA TRIGYNIA.
 25 *Montia fontana*
 TETRANDRIA MONOGYNIA.
 26 *Dipsacus pilosus*
 27 ——— *sylvestris*
 28 *Galium Aparine*
 29 *Plantago lanceolata*
 30 ——— *major*
 31 *Scabiosa Succisa*
 32 *Centunculus minimus*
 TETRANDRIA TETRAGYNIA.
 33 *Sagina procumbens*
 34 ——— *erecta*
 PENTANDRIA MONOGYNIA.
 35 *Hottonia palustris*
 36 *Anagallis arvensis*
 37 ——— *tenella*
 38 *Convolvulus sepium*
 39 ——— *arvensis*
 40 *Solanum Dulcamara*
 41 ——— *nigrum*
 42 *Lonicera Periclymenum*
 43 *Hedera Helix*
 44 *Myosotis scorpioides palust.*
 45 *Lyfimachia Nummularia*
 46 *Vinca minor*
 PENTANDRIA DIGYNIA.
 47 *Conium maculatum*
 48 *Æthusa Cynapium*
 49 *Scandix Anthriscus*
 50 *Chenopodium album*
 51 ——— *viride*
 52 ——— *polyspermum*
 53 ——— *Bonus Henricus*
 PENTANDRIA TRIGYNIA.
 54 *Alfina media*
 55 *Sambucus Ebulus*
 PENTANDRIA PENTAGYNIA.
 56 *Linum catharticum*
 HEXANDRIA MONOGYNIA.
 57 *Fritillaria Meleagris*
 58 *Hyacinthus nonscriptus*
 59 *Juncus campestris*
 HEXANDRIA TRIGYNIA.
 60 *Rumex crispus*
 61 ——— *obtusifolium*
 62 ——— *acutus*
 63 ——— *maritimus*
 OCTANDRIA MONOGYNIA.
 64 *Epilobium hirsutum*
 65 ——— *villosum*
 66 ——— *tetragonum*
 67 ——— *angustifolium*
 68 ——— *montanum*
 69 *Erica tetralix*
 70 ——— *cinerea*
 OCTANDRIA DIGYNIA.
 71 *Polygonum Bistorta*
 72 ——— *Perficaria*
 73 ——— *pensylvanicum*
 74 ——— *var. caule maculato*
 75 ——— *Hydropiper*
 76 ——— *aviculare*
 77 ——— *minus*
 OCTANDRIA TETRAGYNIA.
 78 *Adoxa Moschatellina*
 ENNEANDRIA HEXAGYNIA.
 79 *Butomus umbellatus*
 DECANDRIA DIGYNIA.
 80 *Saxifraga granulata*
 81 ——— *tridactylites*
 82 *Saponaria officinalis*
 83 *Chrysosplenium oppositifolium*
 DECANDRIA TRIGYNIA.
 84 *Stellaria Holostea*
 DECANDRIA PENTAGYNIA.
 85 *Sedum album*
 86 ——— *acre*
 87 ——— *dasyphyllum*

Plate

- 88 ——— *Telephium*
 89 *Oxalis Acetofella*
 90 *Lychnis dioica*
 91 ——— *Flos cuculi*
 92 *Agrostema Githago*
 93 *Cerastium femidecandrium*
 94 ——— *viscosum*
 95 ——— *vulgatum*
 96 ——— *aquaticum*
 DODECANDRIA MONOGYNIA.
 97 *Lythrum Salicaria*
 DODECANDRIA TRIGYNIA.
 98 *Euphorbia peplus*
 99 ——— *Helioscopia*
 DODECANDRIA DODECAGYNIA.
 100 *Sempervivum tectorum*
 ICOSANDRIA POLYGYNIA.
 101 *Fragaria sterilis*
 102 *Potentilla reptans*
 103 ——— *Anserina*
 104 *Geum urbanum*
 POLYANDRIA MONOGYNIA.
 105 *Papaver Rhœas*
 POLYANDRIA POLYGYNIA.
 106 *Adonis autumnalis*
 107 *Ranunculus bulbosus*
 108 ——— *hirsutus*
 109 ——— *acris*
 110 ——— *Ficaria*
 111 ——— *auricomus*
 112 ——— *sceleratus*
 113 *Anemone nemorosa*
 114 *Caltha palustris*
 DIDYNAMIA GYMNOSPERMIA.
 115 *Verbena officinalis*
 116 *Lamium purpureum*
 117 ——— *amplexicaule*
 118 ——— *album*
 119 *Thymus Acinos*
 120 ——— *Serpyllum*
 121 *Ajuga reptans*
 122 *Glechoma hederacea*
 123 *Betonica officinalis*
 124 *Stachys sylvatica*
 125 ——— *palustris*
 126 *Scutellaria galericulata*
 DIDYNAMIA ANGIOSPERMIA.
 127 *Euphrasia Odontites*
 128 *Antirrhinum Cymbalaria*
 129 ——— *Elatine*
 130 ——— *Linaria*
 131 ——— *spurium*
 132 *Digitalis purpurea*
 TETRADYNAMIA SILICULOSA.
 133 *Draba verna*
 134 *Thlaspi Bursa pastoris*
 TETRADYNAMIA SILIQUOSA.
 135 *Erysimum Alliaria*
 136 *Arabis thaliana*
 137 *Brassica muralis*
 138 *Cardamine amara*
 139 ——— *pratensis*
 140 *Sisymbrium sylvestre*
 MONADELPHIA DECANDRIA.
 141 *Geranium cicutarium*
 142 ——— *robertianum*
 143 ——— *molle*
 144 ——— *pyrenaicum*
 MONADELPHIA POLYANDRIA.
 145 *Malva sylvestris*
 146 ——— *rotundifolia*
 DIADELPHIA HEXANDRIA.
 147 *Fumaria officinalis*
 DIADELPHIA DECANDRIA.
 148 *Orobis tuberosus*
 149 *Ervum hirsutum*
 150 ——— *tetraspermum*
 151 *Trifolium ornithopodioides*
 152 ——— *subterraneum*
 153 ——— *fragiferum*

Plate

- 154 ——— *agrarium*
 155 ——— *repens*
 156 *Lotus corniculatus*
 157 *Medicago lupulina*
 158 ——— *arabica*
 159 *Lathyrus pratensis*
 POLYADELPHIA POLYANDRIA.
 160 *Hypericum pulchrum*
 161 ——— *perforatum*
 162 ——— *hirsutum*
 163 ——— *humifusum*
 164 ——— *Androsæmum*
 SYNGENESIA POLYGAMIA ÆQUALIS.
 165 *Leontodon Taraxacum*
 166 *Lapsana communis*
 167 *Sonchus oleraceus*
 168 *Hypochaeris radicata*
 169 ——— *glabra*
 170 *Bidens cernua*
 171 *Carduus marianus*
 172 *Picris echioides*
 SYNGENESIA POLYGAMIA SUPERFLUA.
 173 *Erigeron acre*
 174 *Senecio vulgaris*
 175 *Bellis perennis*
 176 *Tussilago Petasites*
 177 ——— *Farfara*
 178 *Inula dysenterica*
 179 ——— *pulcaria*
 SYNGENESIA MONOGAMIA.
 180 *Viola odorata*
 181 ——— *hirta*
 182 ——— *canina*
 183 ——— *tricolor*
 184 ——— *palustris*
 GYNANDRIA DIANDRIA.
 185 *Ophrys apifera*
 186 ——— *ovata*
 187 *Orchis mascula*
 188 ——— *Morio*
 GYNANDRIA POLYANDRIA.
 189 *Arum maculatum*
 MONOECIA TRIANDRIA.
 190 *Carex pendula*
 MONOECIA POLYANDRIA.
 191 *Poterium Sanguisorba*
 192 *Typha latifolia*
 193 ——— *angustifolia*
 DIOECIA ENNEANDRIA.
 194 *Mercurialis perennis*
 DIOECIA MONADELPHIA.
 195 *Hydrocharis Morfus Ranæ*
 POLYGAMIA MONOECIA.
 196 *Atriplex hastata*
 CRYPTOGAMIA FILICES.
 197 *Asplenium Scolopendrium*
 198 *Polypodium vulgare*
 199 *Osmunda spicant*
 CRYPTOGAMIA MUSCI.
 200 *Bryum scoparium*
 201 ——— *undulatum*
 202 ——— *hornum*
 203 ——— *truncatum*
 204 ——— *viridulum*
 205 ——— *subulatum*
 206 *Bryum argenteum*
 207 ——— *cepitium*
 208 *Hypnum proliferum*
 209 ——— *sericeum*
 210 ——— *purum*
 211 *Polytrichum subrotundum*
 CRYPTOGAMIA FUNGI.
 212 *Agaricus ovatus*
 213 ——— *fimetarius*
 214 ——— *glutinosus*
 215 ——— *plicatilis*
 216 ——— *offreatus*
 217 *Hydnum auriscalpium*
 218 *Phallus impudicus*

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